HC
111
I4

Industrial Canada

V. 21, no. 1-3, 7 (1928)

For Annual Meeting Excursion Itinerary See Page 63

Vol. XXI., No. 1 TORONTO, MAY, 1920 $2.00 per Year

INDUSTRIAL CANADA

HC
111
I4
V.21
No. 1



Why Do Canadians Ask For Certain Brands?

Isn't it because your competitors have been a little more alive to the power of Advertising?

Are you using this mighty engine of Advertising to impress the name and merits of YOUR brand on the consumer's mind?

We have had many years of experience in preparing the kind of Advertising that impels people to buy.

May we help you to present YOUR brand in a way that creates sales?

Our Personalities



J. J. GIBBONS
President

J. J. GIBBONS LIMITED

General Advertising Agents

MONTREAL
Coronation Bldg.

TORONTO
119 Wellington St. West

WINNIPEG
Great West Permanent Bldg.

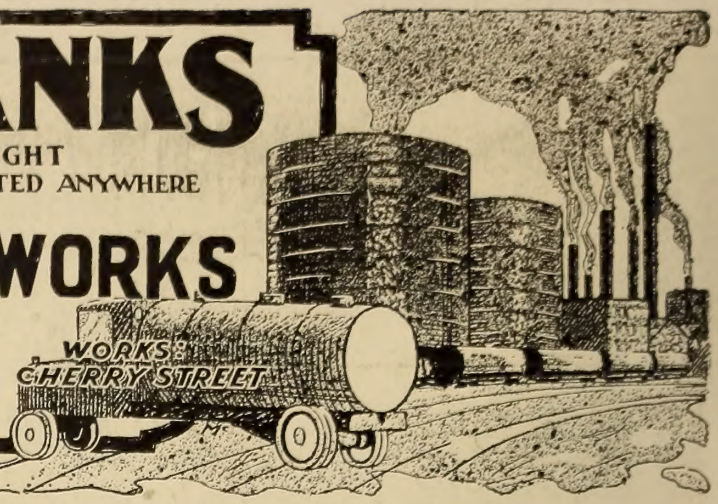
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STEEL TANKS

HEAVY & LIGHT
STEEL PLATE CONSTRUCTION ERECTED ANYWHERE

THE
TORONTO IRON WORKS
LIMITED

HEAD OFFICE:
ROYAL BANK BLDG.
TORONTO





QUALITY FIRST

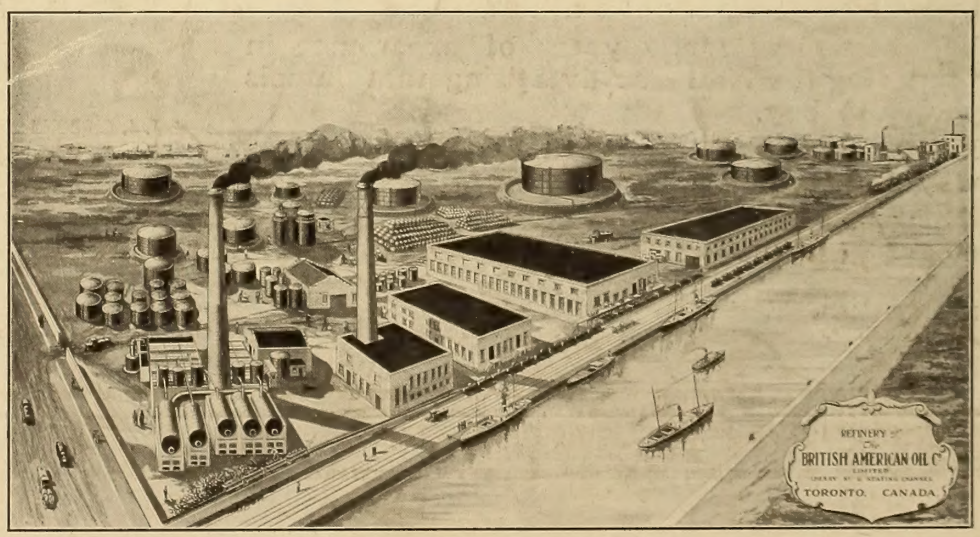
GALT KNIFE CO., LIMITED

GALT - - - ONTARIO

THE BRITISH AMERICAN OIL CO., LIMITED

REFINERS

Gasolene
Benzine
Kerosene
Fuel Oil
Road Oils
Paraffine Wax
Motor and General Lubricating Oils



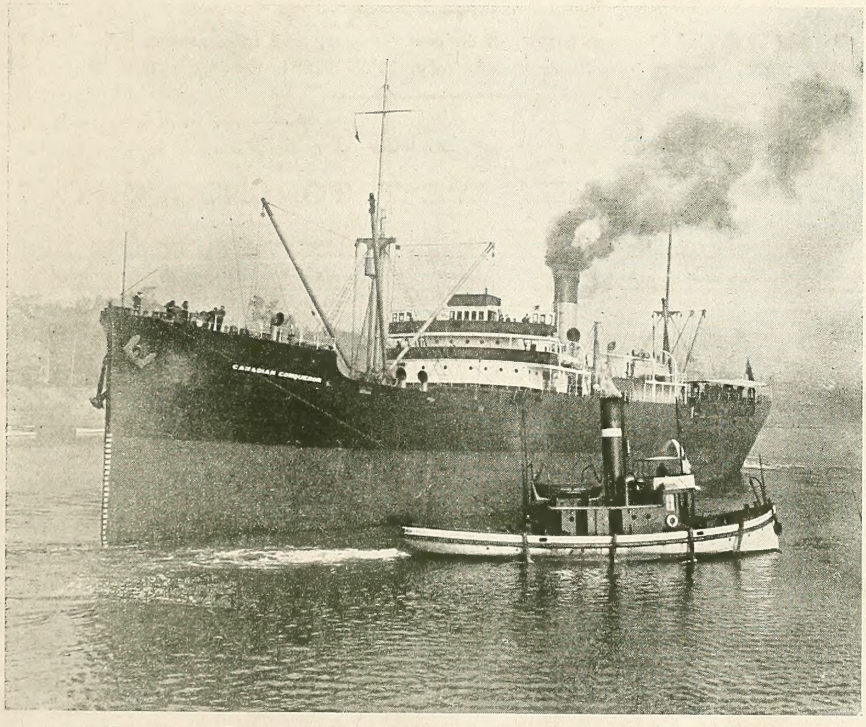
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Ottawa
London
Windsor
St. Catharines
Oshawa
Hamilton
etc.

Head Office: ROYAL BANK BUILDING, TORONTO

Incomplete – No. 4-6, 8-12 missing

Industrial Canada

Vol. XXI., No. 7 TORONTO, NOVEMBER, 1920 $4.00 per Year



A Canadian Government Freighter Carrying Canadian Goods to the Markets of the World.

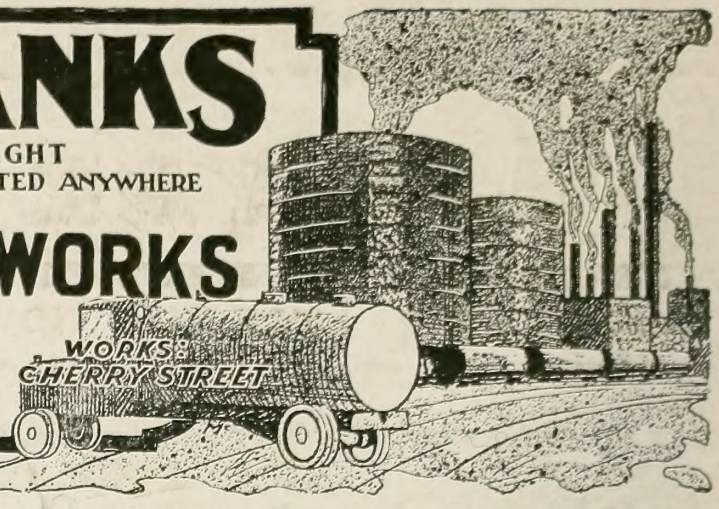
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STEEL TANKS

HEAVY & LIGHT
STEEL PLATE CONSTRUCTION ERECTED ANYWHERE

THE
TORONTO IRON WORKS
LIMITED

HEAD OFFICE:
ROYAL BANK BLDG.
TORONTO



ARE YOUR STEAM PIPES INSULATED?

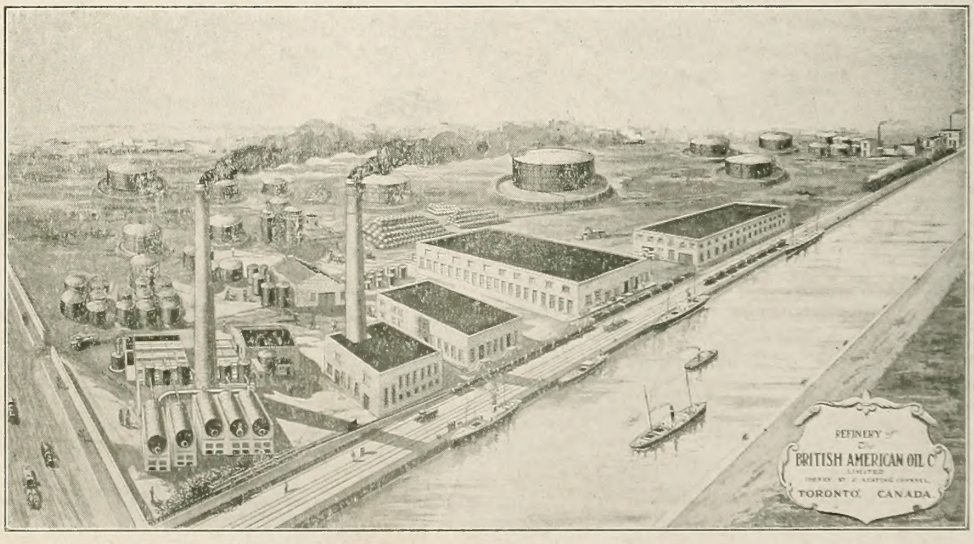
IF NOT YOU ARE BURNING MONEY

A GOOD COVERING pays for itself in one Season, and is a revenue producer indefinitely. The Best is the Cheapest **WE HAVE IT**

EUREKA MINERAL WOOL & ASBESTOS COMPANY
118 ADELAIDE STREET WEST, TORONTO, ONTARIO

THE BRITISH AMERICAN OIL CO., LIMITED
REFINERS

Gasolene
Benzine
Kerosene
Fuel Oil
Road Oils
Paraffine Wax
Motor and General Lubricating Oils

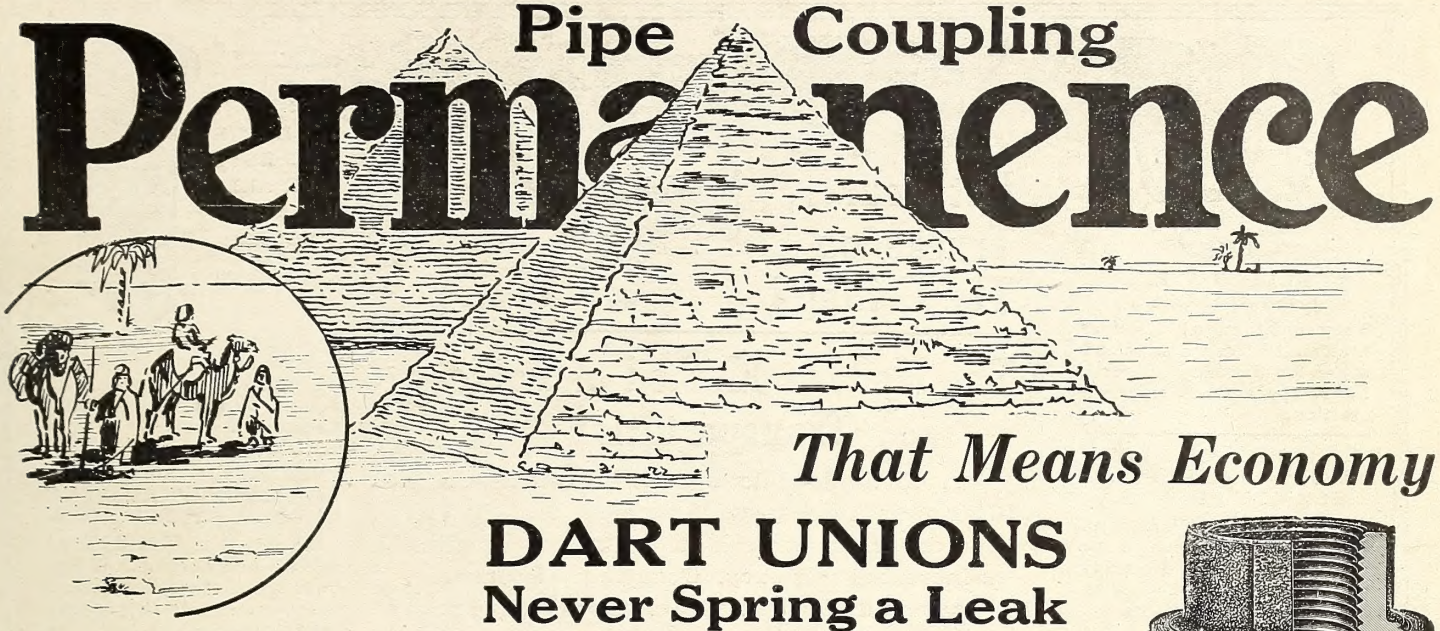


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etc.

Head Office: ROYAL BANK BUILDING, TORONTO

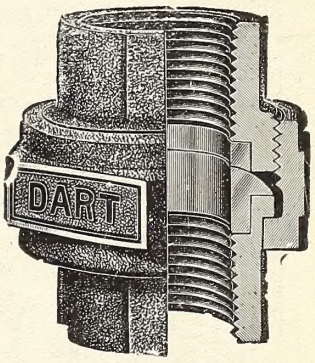
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Pipe Coupling Permanence



That Means Economy

DART UNIONS
Never Spring a Leak



Dart Union Efficiency keeps you free from leaks, upkeep expense and replacement cost.

Never scrap Dart Unions—***use again and again,*** they're always right.

YOUR JOBBER SELLS THEM

Manufactured by DART UNION CO., Limited, Toronto, Ont.

THE FOUNDATION COMPANY
LIMITED
ENGINEERS CONTRACTORS
MONTREAL



Industrial Plant engineers and contractors should be familiar with the building of dams, power houses, manufacturing and storage buildings, and the installation of machinery. We have done all this for the Electric Reduction Co., Limited, at Buckingham, P.Q., whose plant is shown in the photograph

Index to Advertisements. . . . .Page 51 Contents. . . . .Page 53

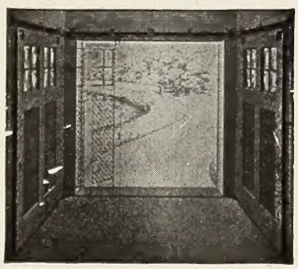


BULLDOG STEEL JOIST HANGERS

They never let go! Stronger than malleable. All sizes and styles for all kinds of work. Save space and time in erection.

GARAGE DOOR HARDWARE OF ALL KINDS FOR ANY PURPOSE

Angle Doors, Parallel Doors, etc. Special jobs receive the prompt attention of our engineering department. Let us know your requirements.





Put Your Trucks on The Ceiling!

The Modern Method of Factory Transportation

A Richards-Wilcox Carrier System---either I-Beam or Trolley---will pay for itself in one year on actual pay-roll saving, not to mention the increased efficiency. Occupies no floor space. Always ready for use. Operates easily, one man can handle 2,500 lbs. Trolley carriers made in sixteen styles and sizes for loads up to 2,500 lbs. For heavier loads use I-Beam Equipment.

Catalogs Upon Request

Richards-Wilcox Canadian Co. Ltd.

AURORA BOSTON NEW YORK CHICAGO London Ontario PHILADELPHIA MINNEAPOLIS SAN. FRANCISCO ST. LOUIS

"A hanger for any door that slides"

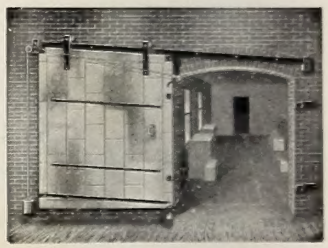
"R-W" TROLLEYS ARE BEST FOR ALL SLIDING DOORS



Specified by leading architects and engineers throughout Canada and the United States. "A hanger for any door that slides."

FIRE DOORS AND FIRE DOOR HARDWARE WITH UNDERWRITERS' LABEL

All styles, single or double, sliding or swinging. A fire door with labeled hardware is the surest way to prevent fire from spreading.



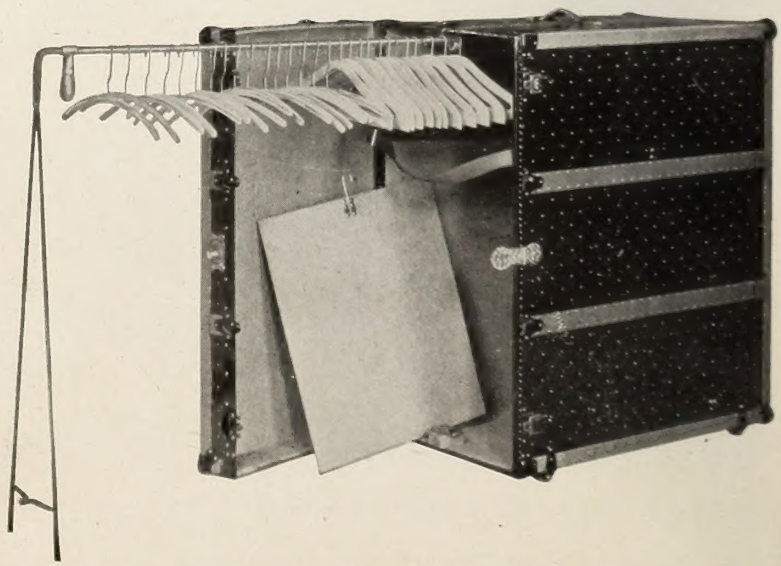
SHOW YOUR SAMPLES UNWRINKLED

WARDROBE TRUNKS

for Suits, Coats, Dresses and Waists

WE MAKE SAMPLE TRUNKS AND CASES FOR EVERY BUSINESS

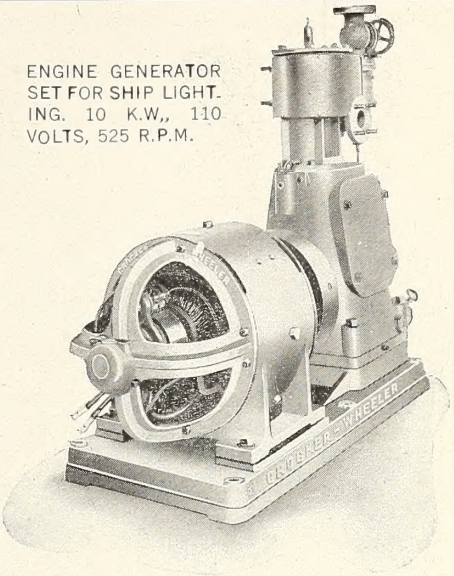
Let us know your needs and get our prices.



The M. Langmuir Mfg. Co. of Toronto Limited

For Ship Lighting

HERE IS A "MADE-IN-CANADA" UNIT THAT WILL GIVE ENTIRE SATISFACTION. IT IS DESIGNED TO PRACTICALLY TAKE CARE OF ITSELF. THE GENERATOR IS OF THE INTERPOLE OR COMMUTATING POLE TYPE, ENSURING STEADY SERVICE FROM NO-LOAD TO HEAVY OVERLOAD. ENGINE IS OF MODERN, HIGH SPEED, FORCED LUBRICATION TYPE.



ENGINE GENERATOR SET FOR SHIP LIGHTING. 10 K.W., 110 VOLTS, 525 R.P.M.

Canadian Crocker-Wheeler Apparatus and Service are available at all of the Branches of the N. E. Co.

Montreal Halifax Ottawa Toronto London
Winnipeg Regina Calgary Vancouver

Northern Electric Company
LIMITED

THE CANADIAN
CROCKER-WHEELER COMPANY
LIMITED

Head Office and Works:
ST. CATHARINES, ONT.

Manufacturers and Electrical Engineers

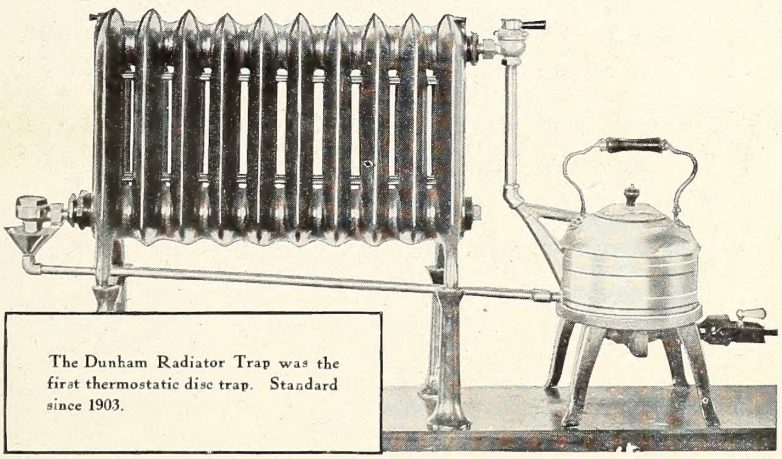
District Offices:
MONTREAL and TORONTO

Heating a Radiator With a Tea Kettle

It was done at the Ottawa Technical School before a group of engineers who were amazed at the demonstration. It proved beyond question that low pressure steam will quickly heat a radiator to 100% efficiency if the trap is right. It indisputably proved that the Dunham Radiator Trap functions perfectly.

Since 1903, the Dunham Radiator Trap has been eliminating any chance of trap trouble in thousands of installations. It was the first thermostatic disc trap. Think of this when you think of traps, and remember that the Dunham Trap is only one element in Dunham Heating Service. The entire service offers much to the man who plans, sells, and installs the heating system—and more to him who pays the bills.

If you welcome suggestions that do not obligate you, get in touch with our nearest office. For authoritative information, write for booklet, "Data on Dunham Heating."



The Dunham Radiator Trap was the first thermostatic disc trap. Standard since 1903.

The DUNHAM HEATING SERVICE

C. A. DUNHAM COMPANY, Limited
TORONTO ONTARIO

Halifax Vancouver Winnipeg
Ottawa Montreal Calgary

London: 64 Regent House
Regent Street, W. 1

THE Bond SERVICE



THE ABOVE PHOTOGRAPH OF A RECENT ORDER ILLUSTRATES

THE SERVICE

WE ARE ABLE TO GIVE TO LARGE INSTALLATIONS.

This order was turned out in 14 working days in our up-to-date plant, without interfering with our regular business. This was possible by our up-to-date equipment, and well trained help. In planning your new factory

LET US HELP YOU

Write for catalogue I.C.-38 illustrating The Bond Double-Sure line of Power Transmission

BOND ENGINEERING WORKS LIMITED
POWER TRANSMISSION MACHINERY

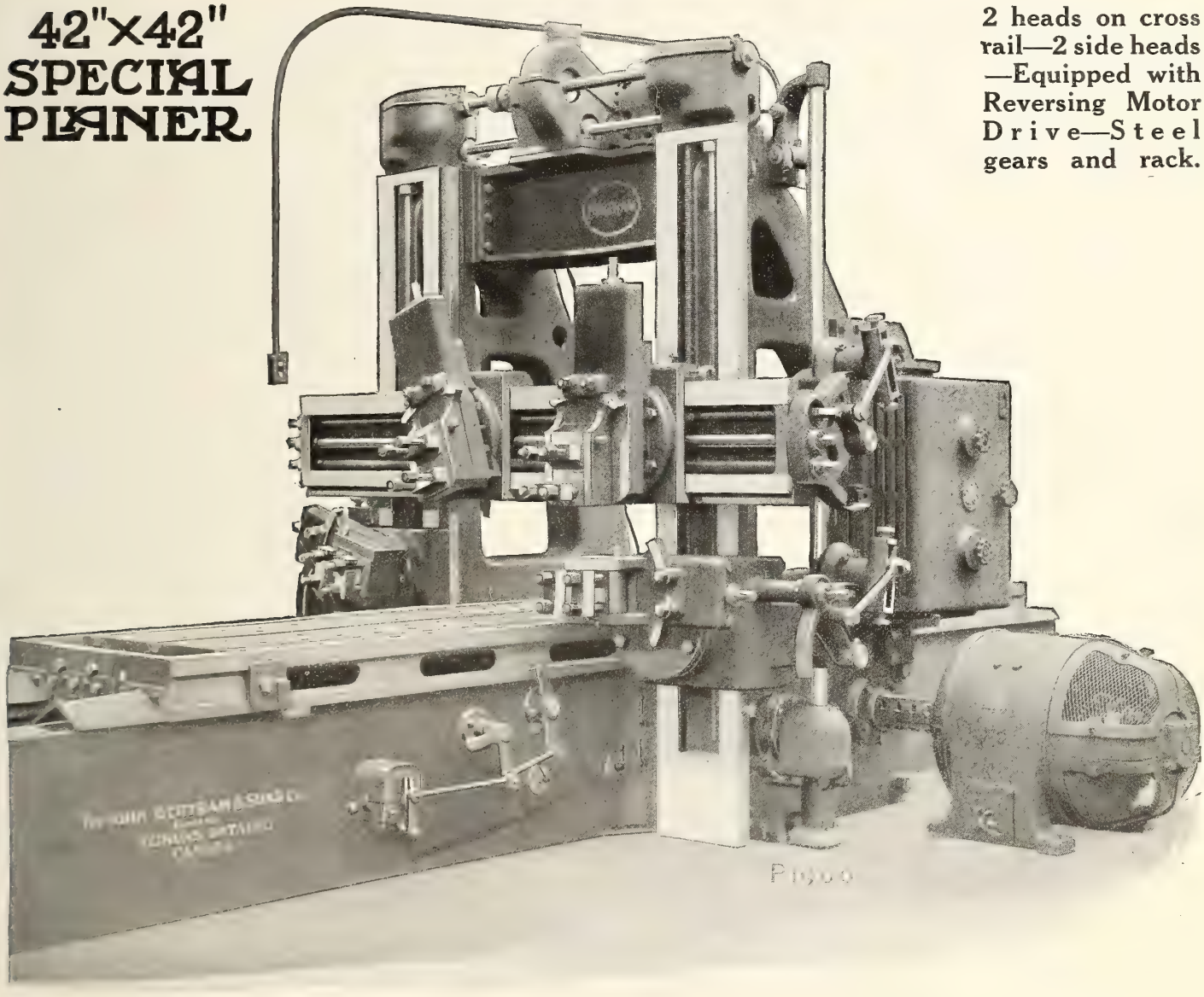
TORONTO, ONTARIO, CANADA

The BERTRAM Page

MACHINE TOOLS

42"x42" SPECIAL PLANER

2 heads on cross rail—2 side heads —Equipped with Reversing Motor Drive—Steel gears and rack.

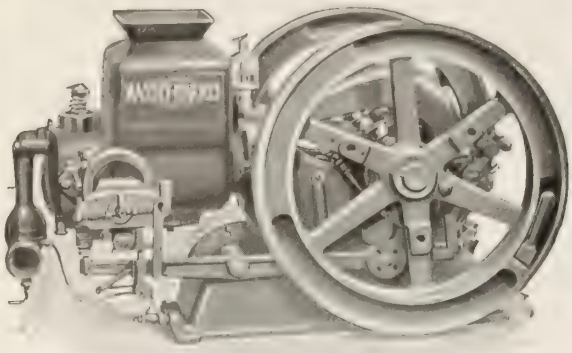


The John Bertram & Sons Co., Limited

DUNDAS. ONTARIO. CANADA.

MONTREAL	TORONTO	VANCOUVER	WINNIPEG	HALIFAX
723 Drummond Bldg.	1002 C.P.R. Bldg.	609 Bank of Ottawa Bldg.	1205 McArthur Bldg.	Davidson Bldg.

Massey-Harris



An Engine You Can Depend On

The Massey-Harris Engine can be depended on to give all the year 'round service in any kind of weather at minimum cost, because it's designed on scientific principles and every part built to stand up and wear long.

Think what these features mean:

Simple in operation.

A Simple and Efficient Carburetor gives a perfect mixture in any kind of weather.

Effective Governor—No charge or spark on Idle Stroke.

Valves Easily Removable.

Large Water Space surrounding Cylinder.

Safe Gasoline Storage in the substantial Cast-Iron Base.

Write for more detailed description of the Massey-Harris Gasoline Engine.

Made in Sizes to deliver from 2 to 15 H.P.

MASSEY-HARRIS CO., Limited

Head Office—Toronto, Canada

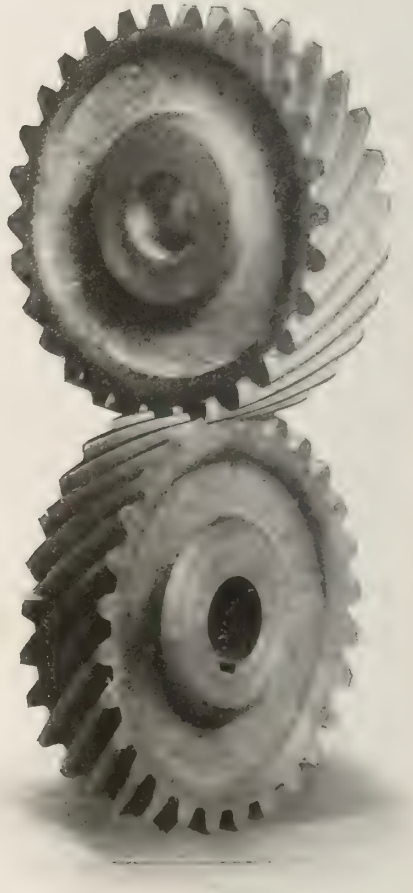
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Montreal Moncton Winnipeg Regina Saskatoon Swift Current Yorkton Calgary Edmonton

AGENCIES EVERYWHERE

CUT GEARS

Send Us Your Specifications



We can serve you well

Hamilton Gear and Machine Co.

Van Horne Street, TORONTO



This illustration shows steel chairs and steel assembling tables manufactured in our factory for the A. Schrader's Sons, Inc. plant, Toronto

Chairs that Never Break

In the factories of Canada, where chairs and stools are used for the employees, there should be an equipment that will stand unusual rough usage.

The most economical stool is one made of steel—it is strong and will withstand, for years, any amount of misuse and yet is light and easy to move.

The Meadows line of chairs and stools is worth investigating. Many factories in Canada have been equipped.

The Geo. B. Meadows Toronto Wire, Iron and Brass Works Co., Limited

479 West Wellington Street, Toronto, Canada



It's Hardly Fair to Figure Greenhouse Possessing In Dollars and Cents

You don't figure the cost of a piano that way; or a choice rug; or any of the real, worthwhile, joy-giving things of life.

Things like that you say to yourself: "It's not so much a question of affording it as if is whether I can afford not to afford it."

When you look into the matter a bit further and find out how out of all proportion to the cost is the all-year-round happiness a greenhouse gives to every member of your family, you will sort of chide yourself for not buying one long ago.

Glad to talk it over with you. Or send you our Glass Garden Booklet.

Lord & Burnham Co. Limited of Canada

Builders of Greenhouses and Conservatories

TORONTO Royal Bank Bldg. MONTREAL Transportation Bldg.

FACTORY: St. Catharines, Ont.



Salt Plant Windsor, Ont.

Windsor Brand

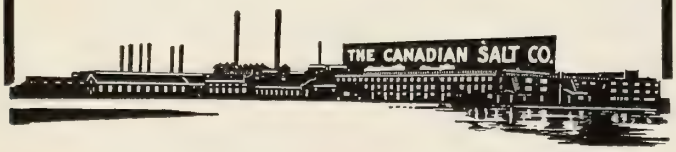
In salt and chemical products, Windsor is unequalled by any other brand. The ever-increasing sales are founded on quality and built on satisfaction.

Regal Salt---Windsor Salt

Caustic Soda
Bleaching Powder
Chloride of Lime

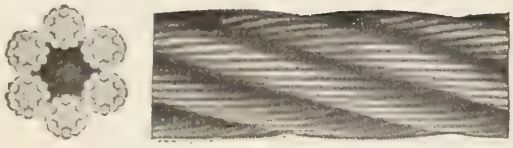
Made in Canada

THE CANADIAN SALT CO., LIMITED
Windsor, Ontario



Chemical Plant Sandwich, Ont.

Wire Rope and Fittings



OF ALL CONSTRUCTIONS

For Ships' Rigging, Hawsers, General Hoisting and Crane Use

We solicit your enquiries

Have you a copy of our Catalogue?

We also manufacture

Boat Railings, Steel Lavatory Partitions, Iron Stairways and Wire Cloth for all purposes

Canada Wire & Iron Goods Co.
HAMILTON

The Master Metal

STELLITE

Not Steel—But Its Master

Stellite is a non-ferrous alloy—a metal harder, tougher and more lasting than the hardest steel ever made.

For milling cutters Stellite has proved itself to be from 30% to 50% more efficient than the best high-speed steel.

Here's what Stellite inserted blade cutters have done for one firm:
Increased production from 1,300 per 10-hour day to 2,100 per 8-hour, 40-minute day, and changed operation from a wet to a dry one. They will do the same for you. Write to-day for a demonstration.

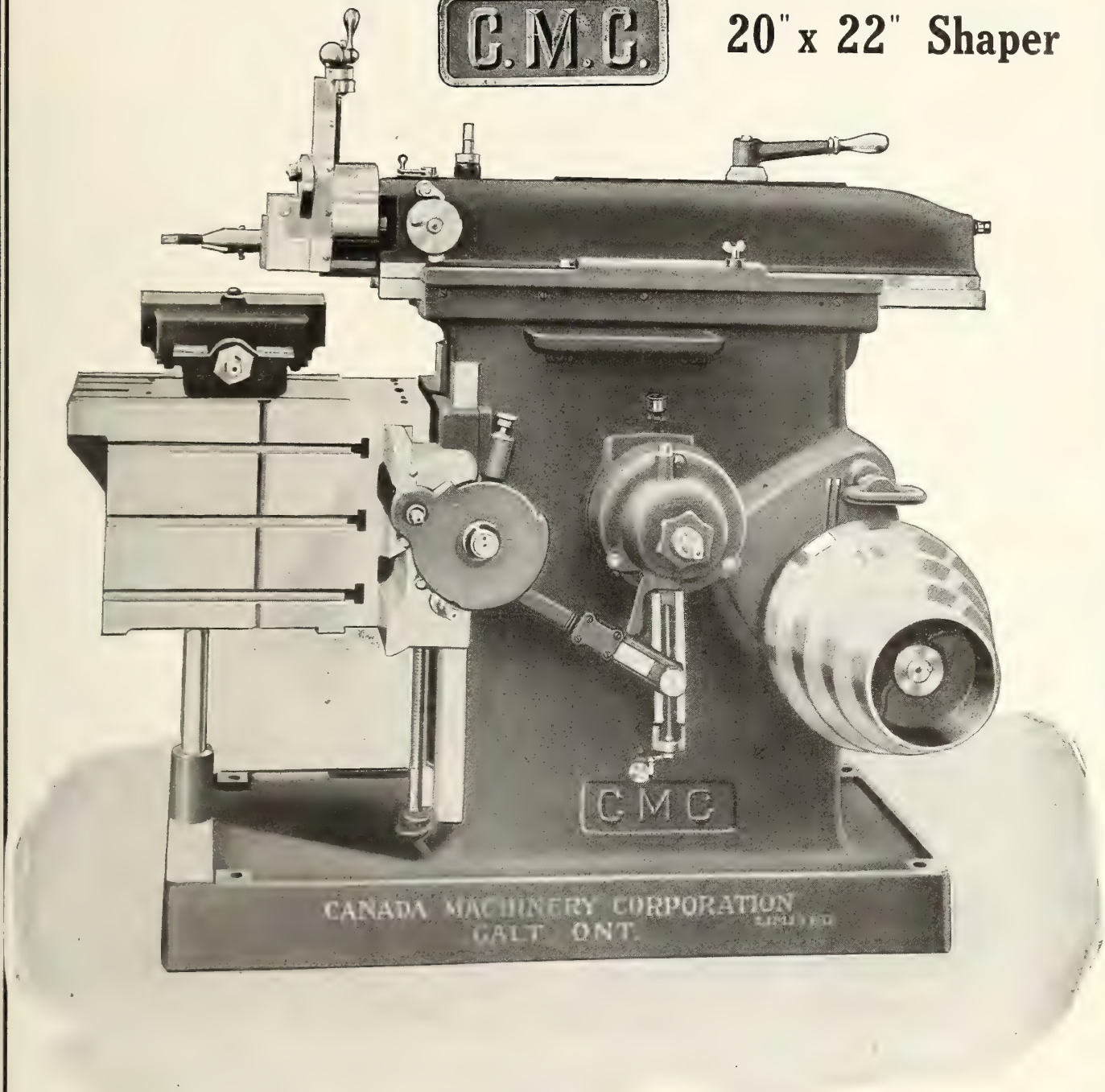
Deloro Smelting & Refining
Company, Limited
Head Office and Works:
DELORO, ONT.

BRANCH WAREHOUSES:
200 King St. West ..... Toronto, Canada
174 Corporation Street ..... Birmingham, England
26 Albermarle Street..... London, England

The Master Metal

C.M.C.

20" x 22" Shaper



DOWN FEED TO HEAD ONE SIDE OPERATION IMPROVED STROKE INDICATOR

CANADA MACHINERY CORPORATION
LIMITED

GALT, ONTARIO

TORONTO OFFICE AND WAREROOMS -- -- BROCK AVENUE SUBWAY

TRY THE **PEDLAR** PEOPLE LIMITED
OSHAWA, ONT.

For Everything in

STEEL STAMPINGS



NEARLY 60 years of specialized experience and a plant that has few equals on the continent for equipment, assure you exceptionally good service when you place your order with us for Steel Stampings and deep-drawn work. We can handle Stampings of every size and are particularly well-known for automobile body stampings and tank work of all descriptions.

Are you using castings or forgings when perhaps a stamping would not only be more economical but would serve better?

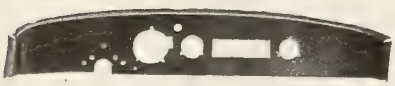
Our engineering department is at your service to help you determine where you can replace forgings or castings with steel stampings.

WE INVITE YOUR ENQUIRY

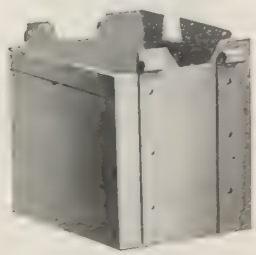
THE PEDLAR PEOPLE LIMITED
(Established 1861)

Executive Offices and Factories: OSHAWA, ONT.
Branches: Montreal, Quebec, Halifax, St. John, Ottawa, Toronto, Winnipeg, Vancouver

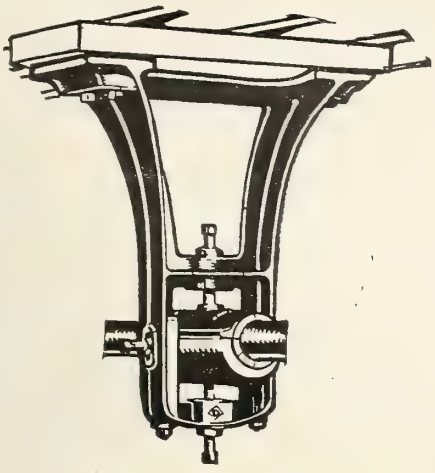


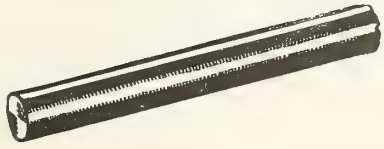


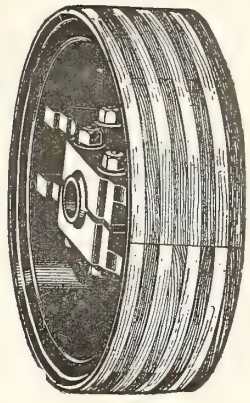












56 Distributors for

DODGE

Shafting Hangers Pulleys

Every considerable town has a stocker carrying a reasonable quantity of Dodge Shafting, Hangers and Pulleys.

Our factory men continuously call upon these stockers to see that stocks are kept up.

Stockers' standing instructions are that orders that cannot be filled immediately from stock must be wired to the Toronto or Montreal warehouse for shipment that same day.

We rarely fall down. As a result this very simple organization has built up a sound reputation for deliveries.

When a firm wants Transmission equipment they are usually in a mighty big hurry for it---in fact would have liked to have had it yesterday.

Therefore, we tell stockers that the one sure way to hold the good will of customers is to do the next best thing---ship the order to-day.

We advertise continuously where we have stockers so that local buyers may know who these men or firms are.

We tell you this because we want you to know the way we work so that you can call upon us with assurance when the time comes.

DODGE

MANUFACTURING CO., LIMITED
TORONTO = = = ONTARIO

Also 770 St. Paul Street West, Haymarket Square, Montreal, Que.
CANADA'S LARGEST BUILDERS OF TRANSMISSION MACHINERY

Dominion Copper Products Company, Limited

Manufacturers of

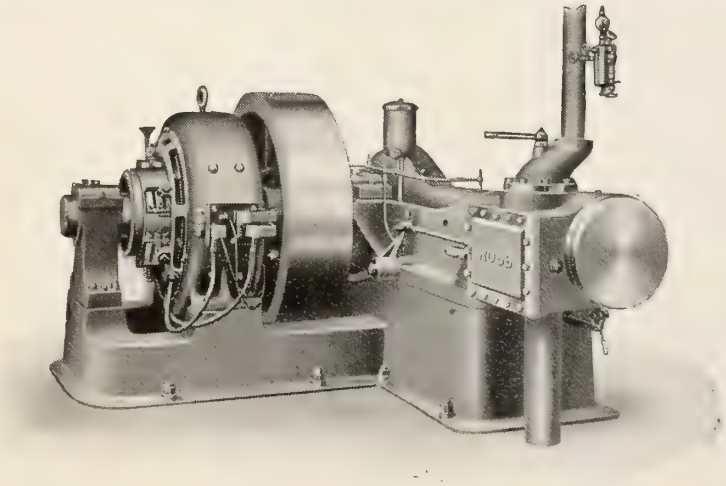
COPPER AND BRASS

Seamless Tubes, Sheets and Strips in all Commercial Sizes

Office and Works: LACHINE, Que., Canada

P.O. Address: MONTREAL, Que. Cable Address: "Domcopper"

ROBB POWER PLANTS



Engines

Corliss, slide valve, vertical, horizontal, simple and compound.

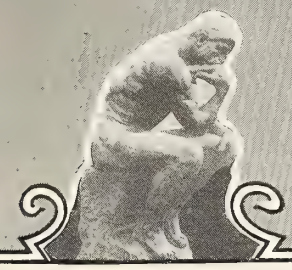
Boilers

Water tube, return tubular, improved Scotch marine and portable.

Robb Engineering Works, Limited, Amherst, N.S.

MONTREAL OFFICE
Phone Westmount 6800

TORONTO OFFICE
20 Victoria Street



"How Much Can A Worker Produce?"

Big question, is it? We don't think so—it can all be summed up in a few words:

"As Much As He Wants To!"

But someone has got to make them "want to"—this can be done only by changing their present destructive viewpoint.

Well, that's what Sherman Service is and does—we tell the truth about things, show by example and precept that *work well done is appreciated and paid for*

We cause your workers to *think right*—about you, your firm, your product, and Our Country.

We Make 'Em Want To!

Result Increased effort; better production quality and quantity; decreased labor turnover; more careful and painstaking attention given to things in general.

We're doing it for others—from Halifax to Texas, and from Georgia to Winnipeg.

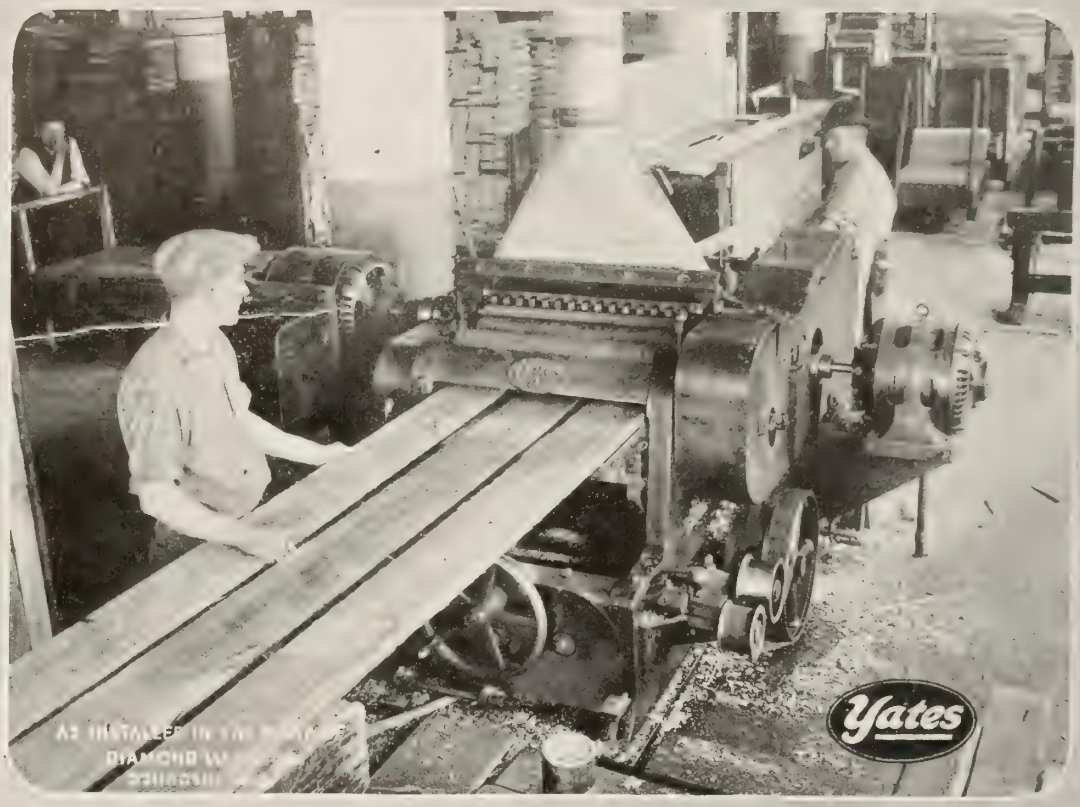
We Can Accomplish Things For You!

SHERMAN SERVICE LTD.

Production Engineering
Industrial Co-ordination

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"A CLEAR BARGAIN—A DEAR FRIEND."

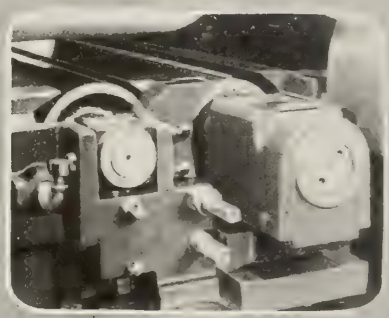


Yates type B-2 has earned its famous name by remarkable performance wherever it has been installed, not by bursts of speed for short periods, but by steady day after day production.

To learn more about this machine, write for our new illustrated circular, which will be sent free on request.

P. B. Yates Machine Co. Ltd.
HAMILTON, ONT. CANADA

United States Plant, Beloit, Wisconsin



SECTION OF B-2 SHOWING BOTTOM HEAD

"The Invariable Choice of the Man Who Knows"



The dependable "Character" of Dominion Rubber System Hose is the result of its ability to meet exacting conditions

INDUSTRY is the stern parent of improvement. Twenty years ago, the making of rubber hose was in its infancy; to-day it has become an art with us.

Two reasons account for the selection of Dominion Rubber System Hose by most Canadian industries; first, because its performance is a tangible buying guide; and second, because our manufacturing department keeps abreast of industry's most exacting demands.

DOMINION RUBBER SYSTEM
Hose For Industrial Use

is designed for every requirement, whether it be for conveying liquids, gases, oils, acids, or steam, at any practical temperature or pressure. When new conditions crop up, we produce special types to meet them. The fact that we do create new types for the Canadian market, is evidence that Dominion Rubber System Hose measures up to the requirements of Canada's largest hose users.

Our catalog is a useful and convenient reference in selecting the exact type of hose for your requirements. It pictures and describes the complete line, and gives the service conditions for which each type is designed. A copy will be sent on request from our nearest service branch.

CANADIAN CONSOLIDATED RUBBER CO. LIMITED
DOMINION RUBBER SYSTEM AND ASSOCIATED COMPANIES

Dominion Rubber System Service Branches

Halifax	London	Saskatoon
St. John	Kitchener	Edmonton
Quebec	North Bay	Calgary
Montreal	Fort William	Lethbridge
Ottawa	Winnipeg	Vancouver
Toronto	Brandon	Victoria
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96



Fairbanks Dial Scales

—cut Time and Labor costs. Stop and figure out the time wasted in weighing and computing weights. It amounts to considerable in a year.

Fairbanks Dial Scales eliminate all the waste time and labor it is possible to save. They put your weighing on an efficient basis. The plainly graduated dial does this.

Fairbanks Renewable Disc Valves

Create a new efficiency in valves. The disc of these valves are renewable in less than a minute, without removing the valve from the line—and a wrench is the only tool needed.

Ask us about Fairbanks Scales and Valves for your plant.

Our nearest branch will give you the fullest co-operation.



The Canadian Fairbanks-Morse Co., Limited

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CALGARY
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A Modern Printing Plant

New Home of the Acton Publishing Company, Limited—A Forward Movement in Printing Efficiency, Up-to-date Equipment and Methods —A Modern Plant.



Printing Plant of Acton Publishing Company Limited

SOME years ago we found such a growing demand for an "out-of-the-ordinary" class of printing that we decided to equip ourselves to handle the finest work that could be produced.

As a result of this move it was only a short time until our plant and premises were over-crowded. We were then obliged to seek a larger home to look after an ever increasing clientelle.

When making a move we decided to not only equip ourselves to handle more and better business but to have a place where our men and women helpers would feel at home and happy. This is essential to the production of fine work.

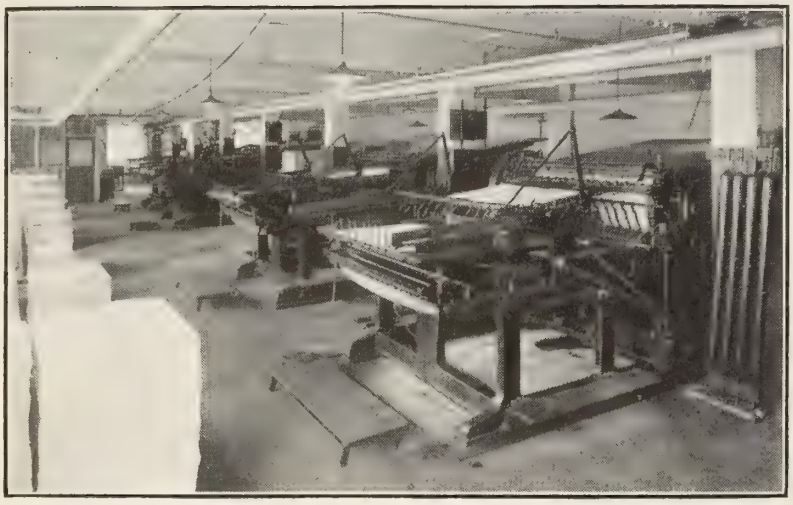


A View of a Portion of the Main Office

We no longer call ourselves sellers and producers of high grade printing, but rather the producers of ideas and business builders. The very kind of a concern you are looking for to handle your work economically, efficiently and with least trouble to you.



A Section of the Composing Room



A View of a Portion of the Cylinder Press Room



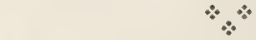
A View of a Section of the Bindery

We show you here a few views of our new plant that do not tell the whole story and extend an invitation to you when in Toronto to come in and see us, and we will gladly show you our plant in operation. If this is not convenient then write to us and tell us of your merchandising difficulties and we will solve them, at least from the publicity standpoint.

We manufacture Catalogues, Booklets, Calendars, House-Organs, Store and Street Car Cards in colors or black and white.

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Why not avail yourselves of our publicity service?



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Prest-O-Lite Service goes wherever you can go—does any kind of a welding or cutting job for the least cost in time and money.

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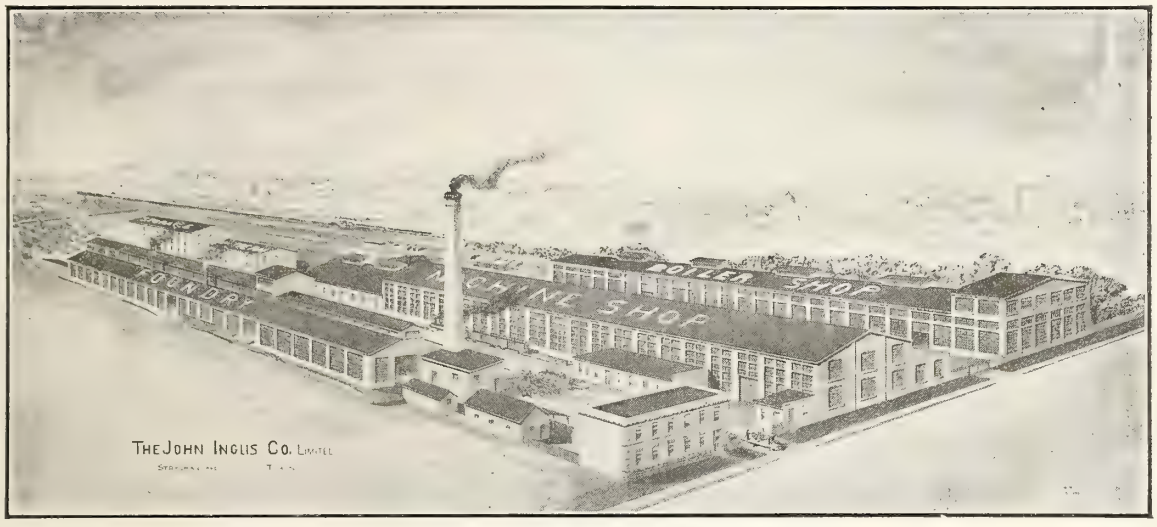
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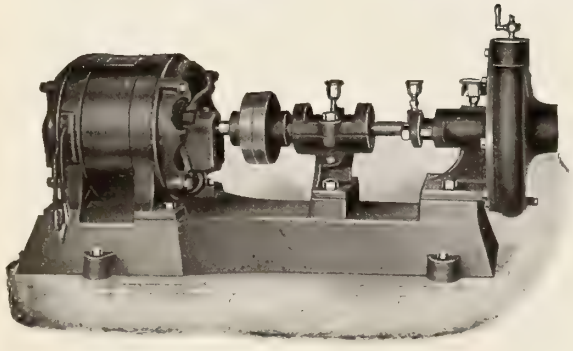


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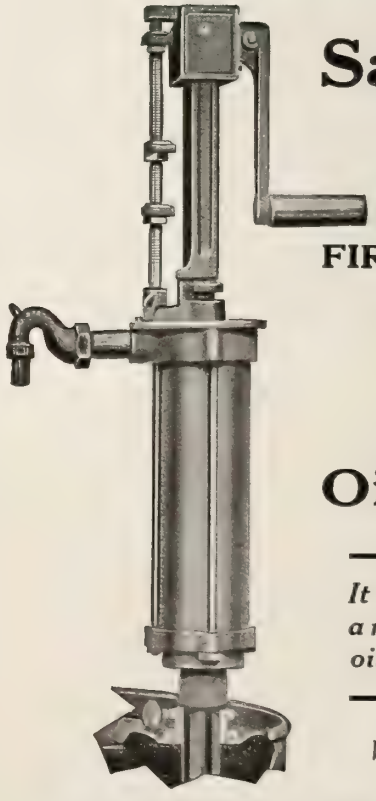
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Save Oil
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by installing our
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It stops the drips and consequent oil-soaked floor.

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JENKINS VALVES

Made in Canada

THE STANDARD FOR STEAM USERS EVERYWHERE

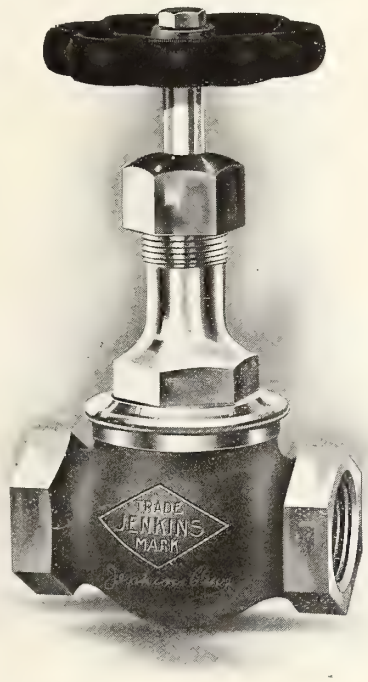


Fig. 106
JENKINS
STANDARD PATTERN BRASS GLOBE VALVE SCREWED

The universal reputation of Jenkins Valves, resulting from over fifty years' experience has naturally encouraged imitations. It is therefore highly important that proper care be taken to make sure that the valves you buy are GENUINE JENKINS and have the Diamond Trademark cast on body.

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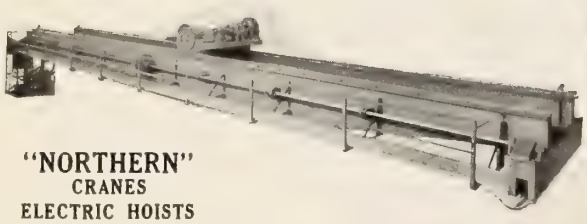
Our designing department is at the customer's disposal for special sketches and will gladly incorporate any suggestions forwarded.

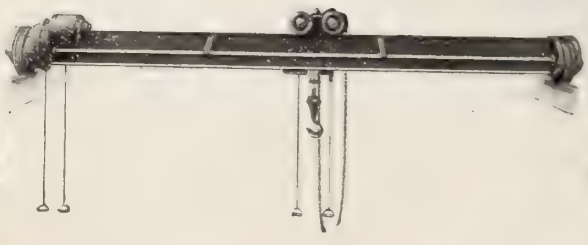


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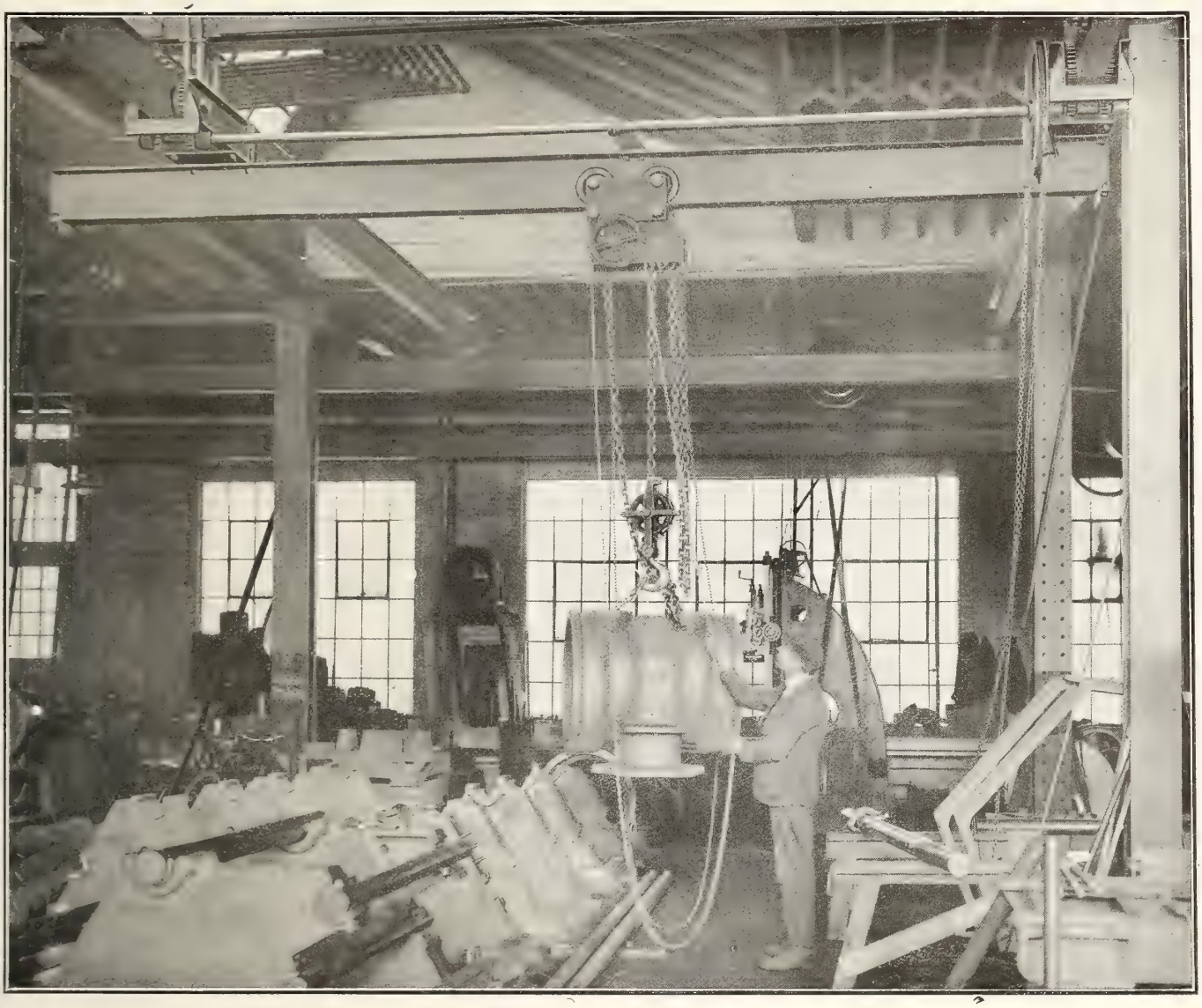






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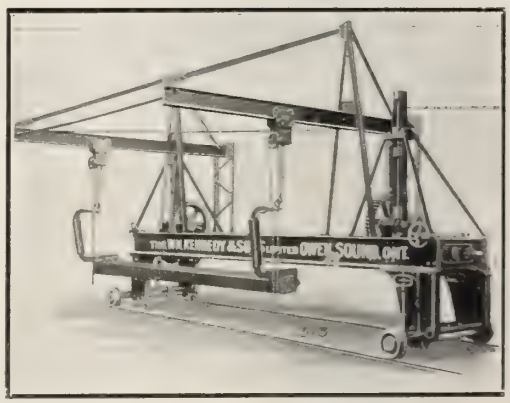
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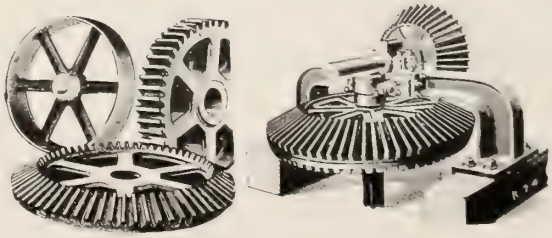


WATER WHEELS



STOPLOG WINCHES

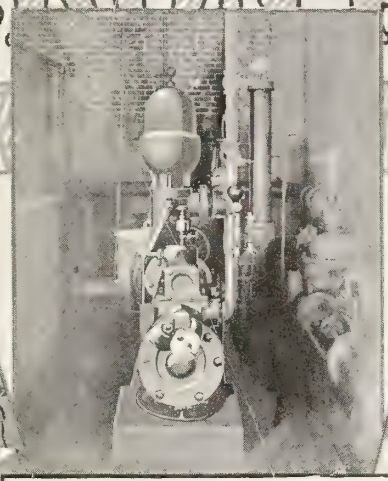
Gears

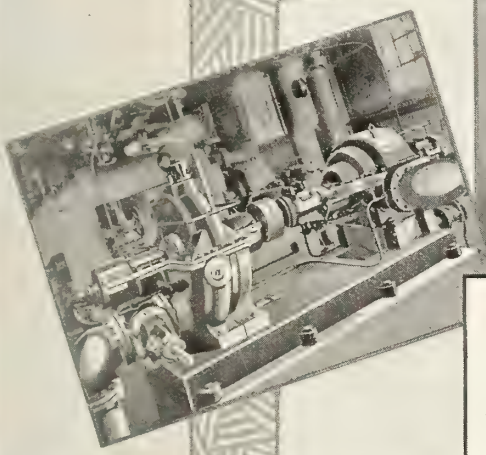


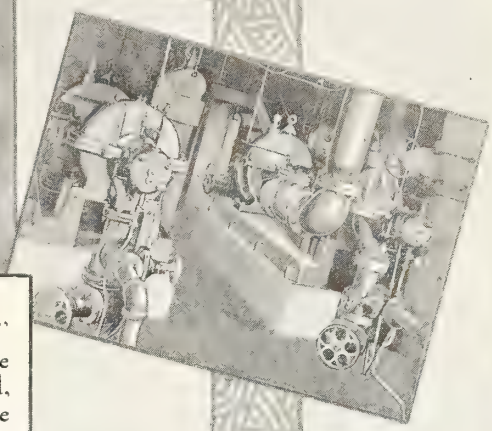
Steel Castings

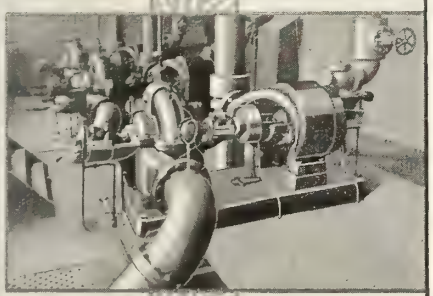
THE WM. KENNEDY & SONS, Limited - Owen Sound, Canada

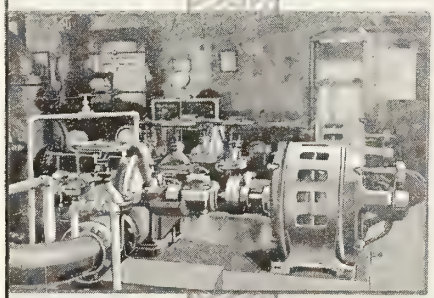
CAMERON PUMPS









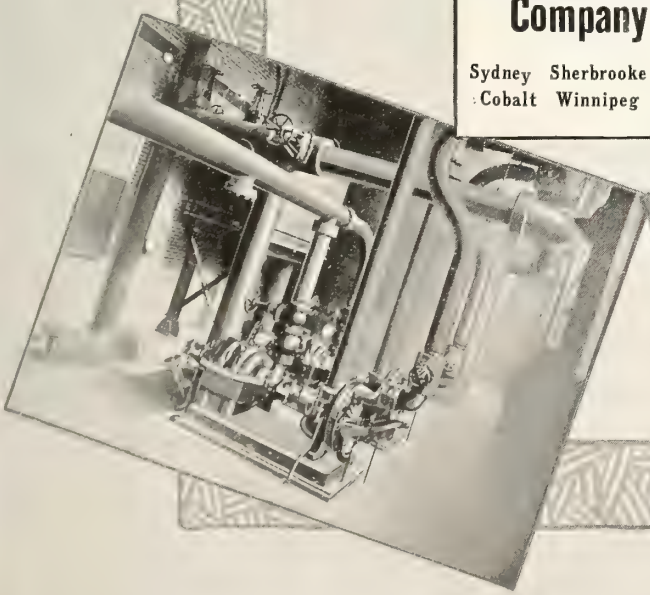


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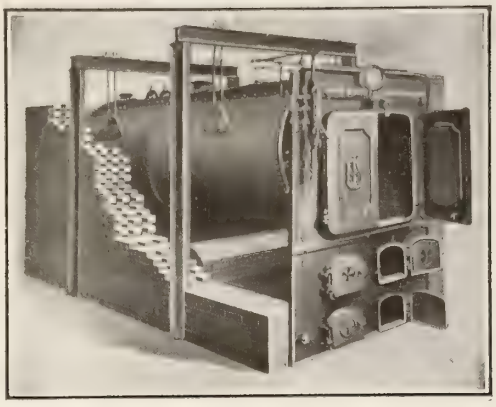
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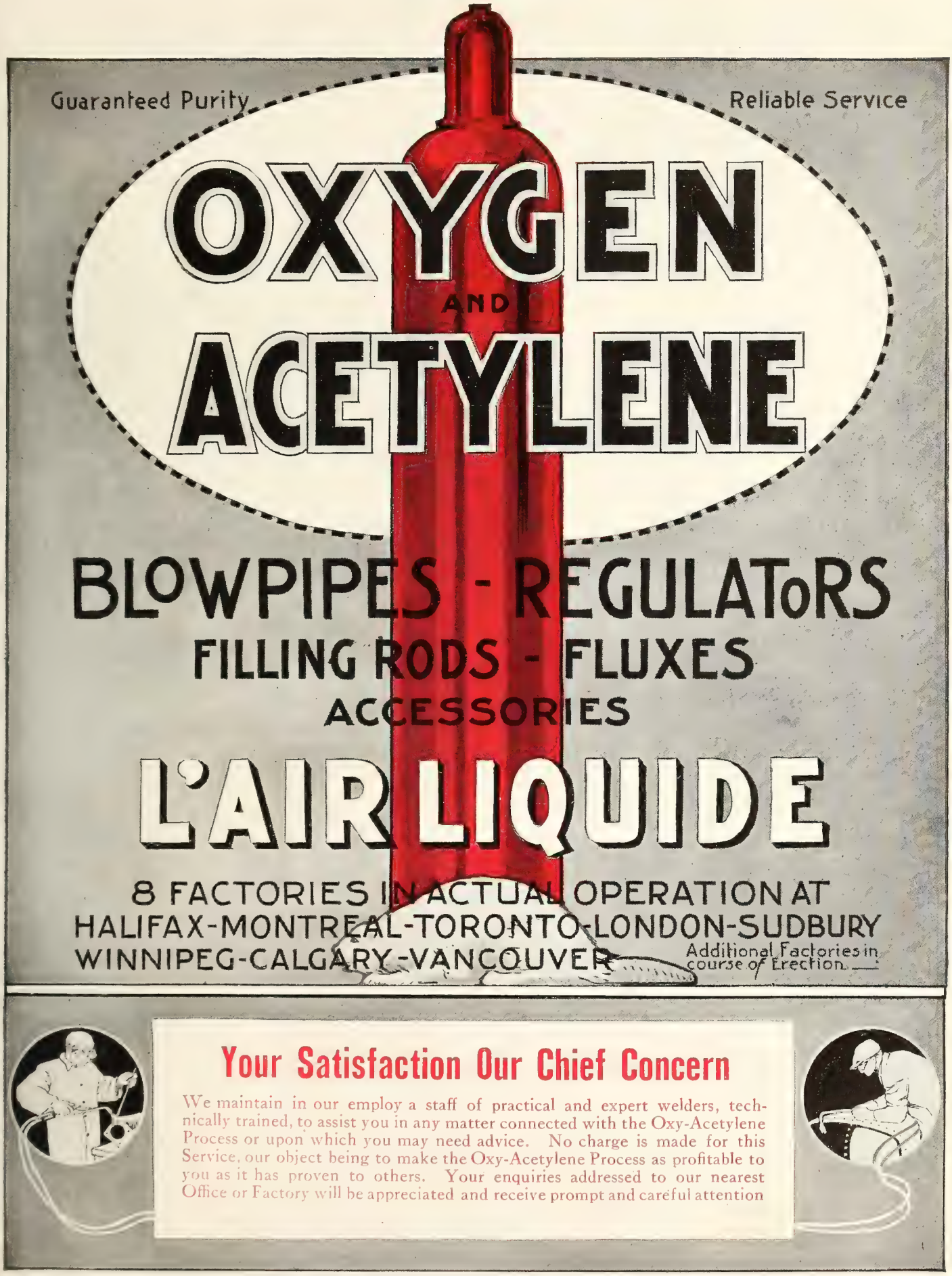
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We maintain in our employ a staff of practical and expert welders, technically trained, to assist you in any matter connected with the Oxy-Acetylene Process or upon which you may need advice. No charge is made for this Service, our object being to make the Oxy-Acetylene Process as profitable to you as it has proven to others. Your enquiries addressed to our nearest Office or Factory will be appreciated and receive prompt and careful attention

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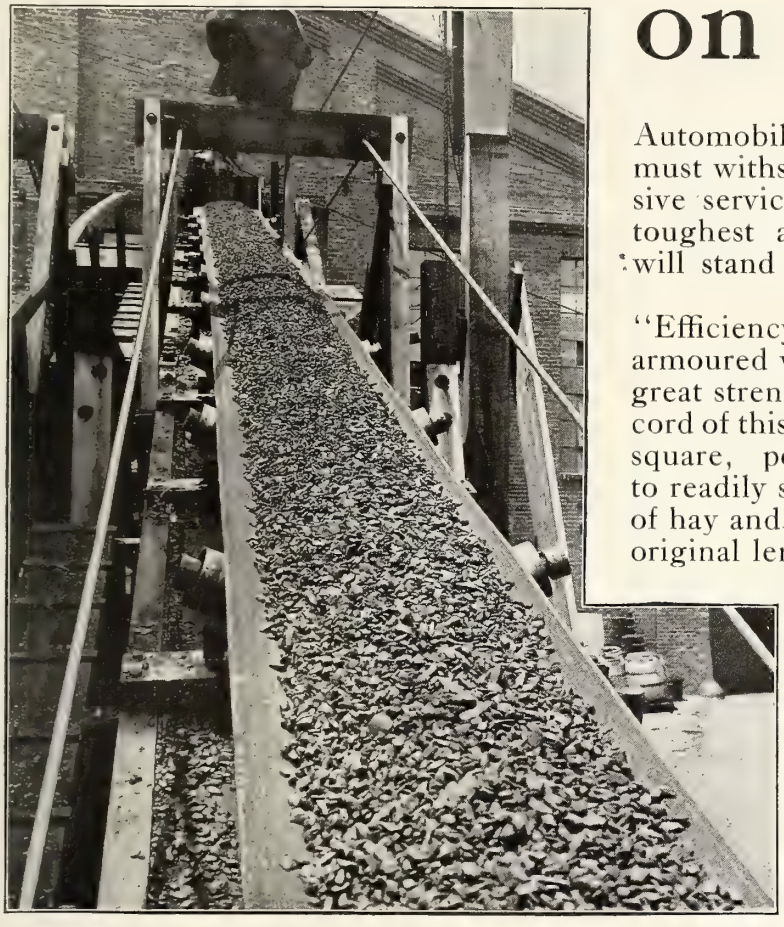
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Automobile Tire Treads encounter and must withstand the most abusive, abrasive service. Nothing but the very toughest and strongest rubber stock will stand it long.

"Efficiency" Conveyor Belts are heavily armoured with Tire Tread Rubber of great strength and elasticity. A single cord of this toughened rubber, one inch square, possesses sufficient strength to readily suspend in mid-air a big load of hay and will stretch several times its original length without breaking.

"Efficiency" Conveyors, like highest grade Auto Tires, are made for the most exacting service.

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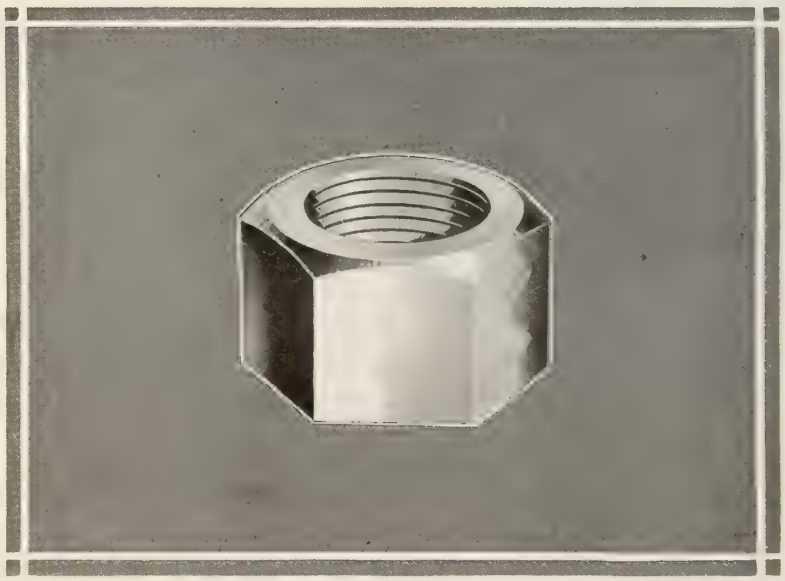
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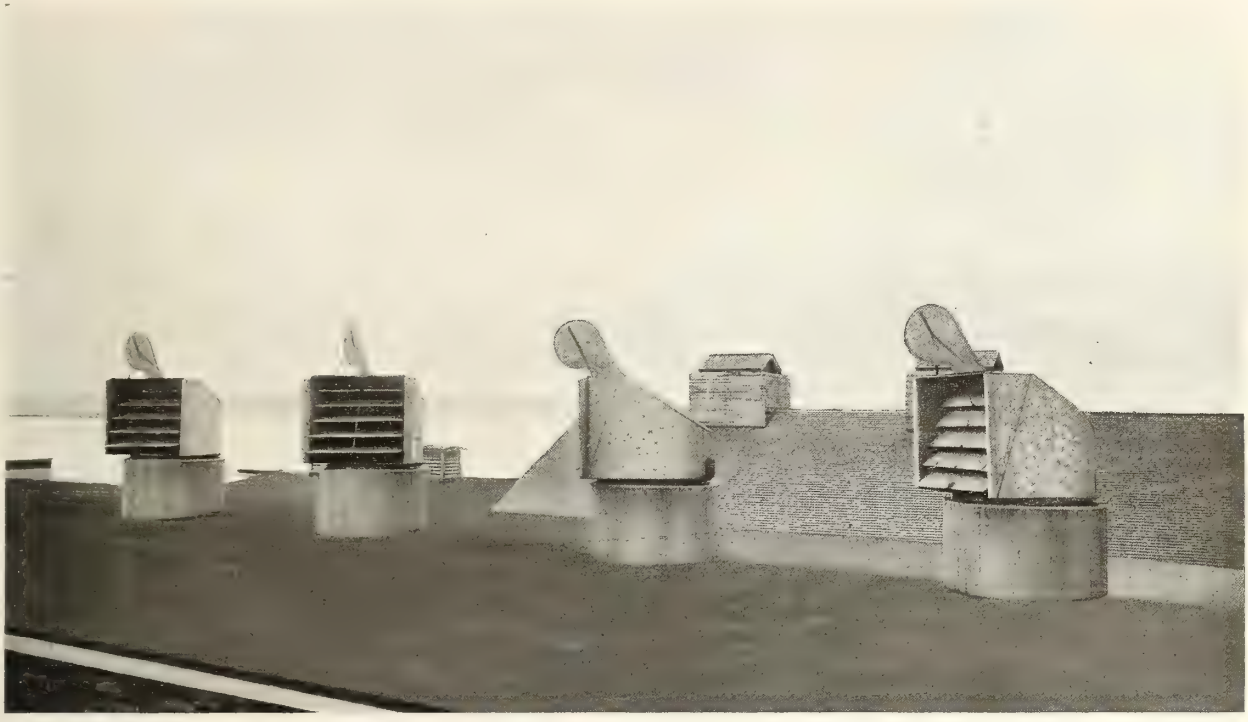
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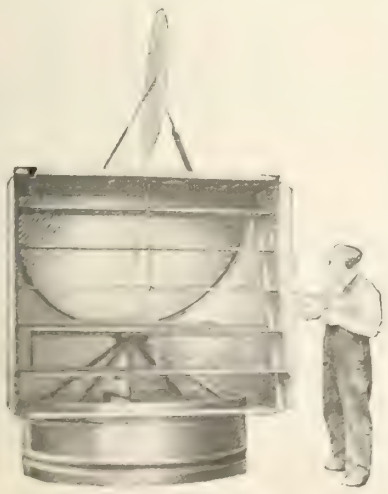
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Looking to the wind alone as its source of power, and built to remain ever sensitive to the slightest air movements, the initial cost of Ormsby Swartwout Ventilators also means the only cost of perfect ventilation.

One eighteen inch Ormsby Swartwout Ventilator will exhaust 67,000 cu. ft. of foul air per hour and maintain this average under all conditions. This capacity is the proven result of exhaustive tests covering a long period.



Lesser capacities may be obtained as desired by the adjustable damper which is chain controlled from below.

You will find nothing experimental about Ormsby Swartwout Ventilators. They are nothing more than a practical mechanical application of an established principle.

We have a very interesting booklet on this subject, "The Gospel of Fresh Air," which we would be pleased to mail to executives on request. It is worth while reading.

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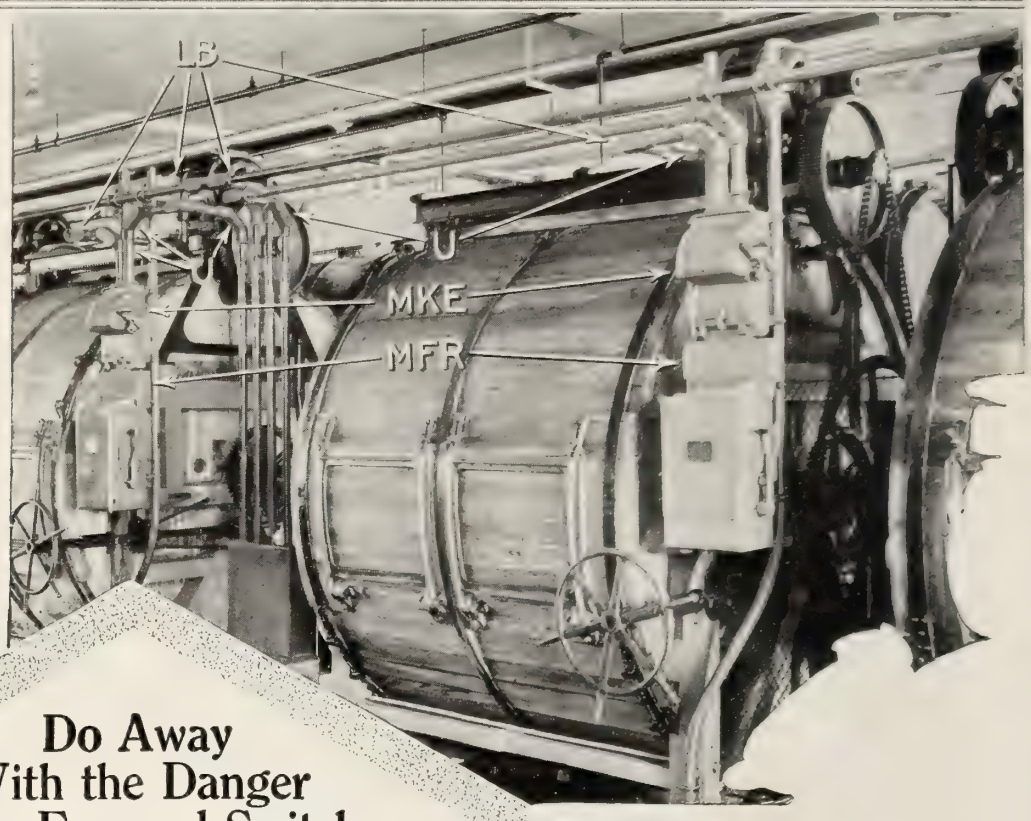
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Do Away With the Danger of the Exposed Switch

You can avoid the dangerous exposed knife switch in your installations by using Crouse-Hinds Safety Switch Condulets.

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Door over the fuse compartment can not be opened when the switch is in the "on" position.

Condulet the Job

CROUSE-HINDS

The Right Way is the Only Way



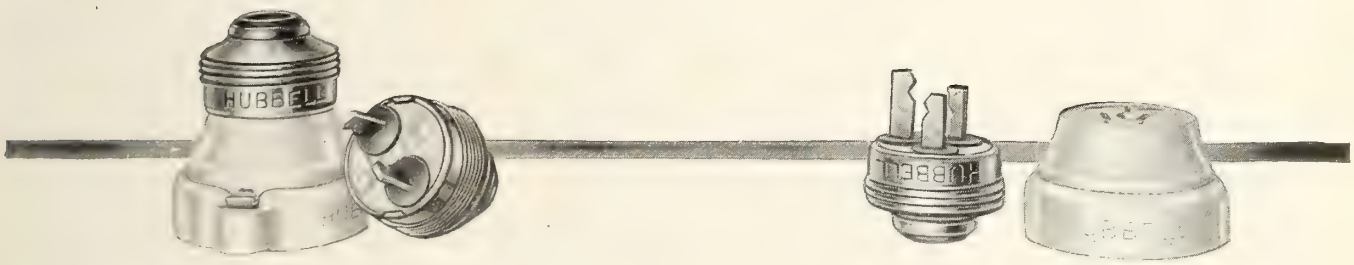
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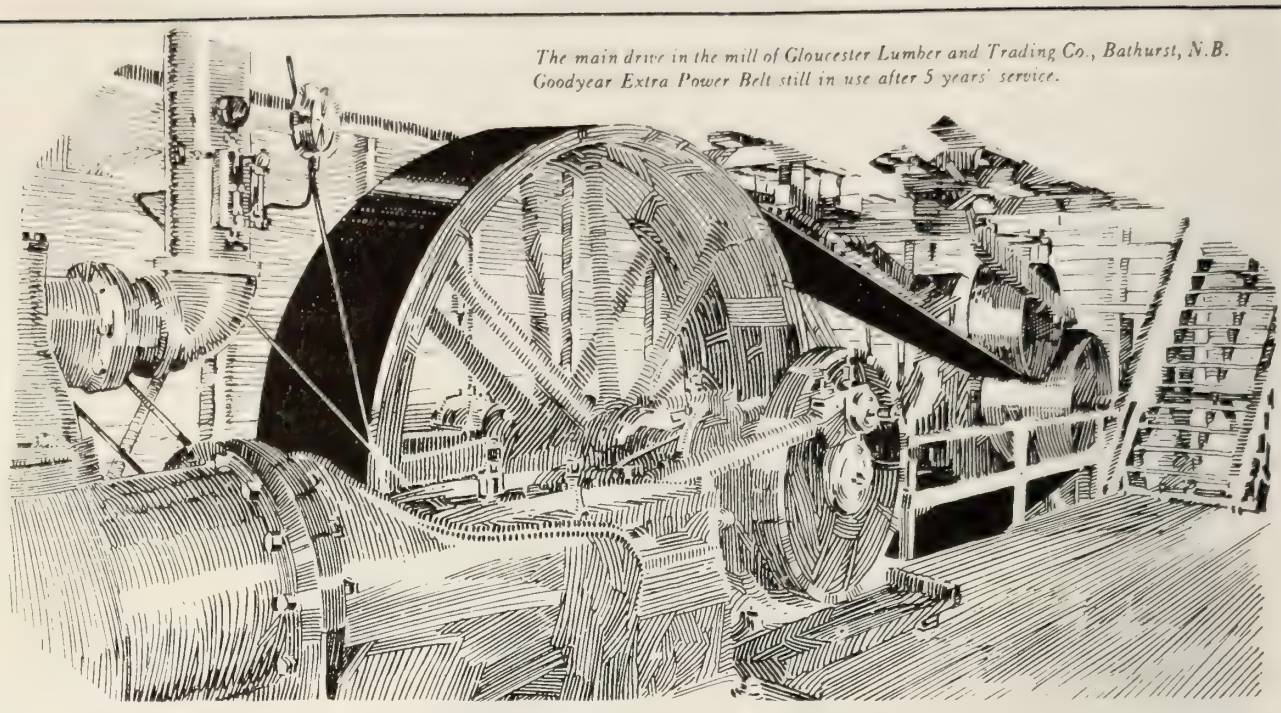
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Master Belts of Industry

Goodyear has solved the problem of belting the great main drives of industry—the backbone of production.

Experience, in a thousand Canadian plants, says Goodyear Extra Power Belts.

Because these belts are *strong*—with the strength of properly selected fabric, every thread perfect.

Yet *flexible*, hugging pulleys, taking advantage of every inch of pulley surface. Flexible because in Goodyear Extra Power Belting high-grade rubber is forced through and through the fabric in generous quantities. Every strand is cushioned in it. No stitching to stiffen or weaken the belt. No separation of plies.

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The testimony for Goodyear Extra Power on main drives is very complete. For instance:—

The Norfolk Milling Company, of Simcoe, writing about their main drive belt, purchased a year ago, say:—

"Has been in continuous operation for one year, and has not stretched nor given us the slightest bit of trouble."

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Amherst Foundry Company, Ltd., Amherst, N S
Hull Iron and Steel Foundries, Ltd., Hull, Que.
Quebec Graphite Co., Ltd., Buckingham, Que.

The complete story of Goodyear Extra Power Belts on main drives is interesting. There are facts about other types of drives just as important to you. Let a Goodyear belting man call and talk to you. No obligation. Just phone, wire or write the nearest branch.

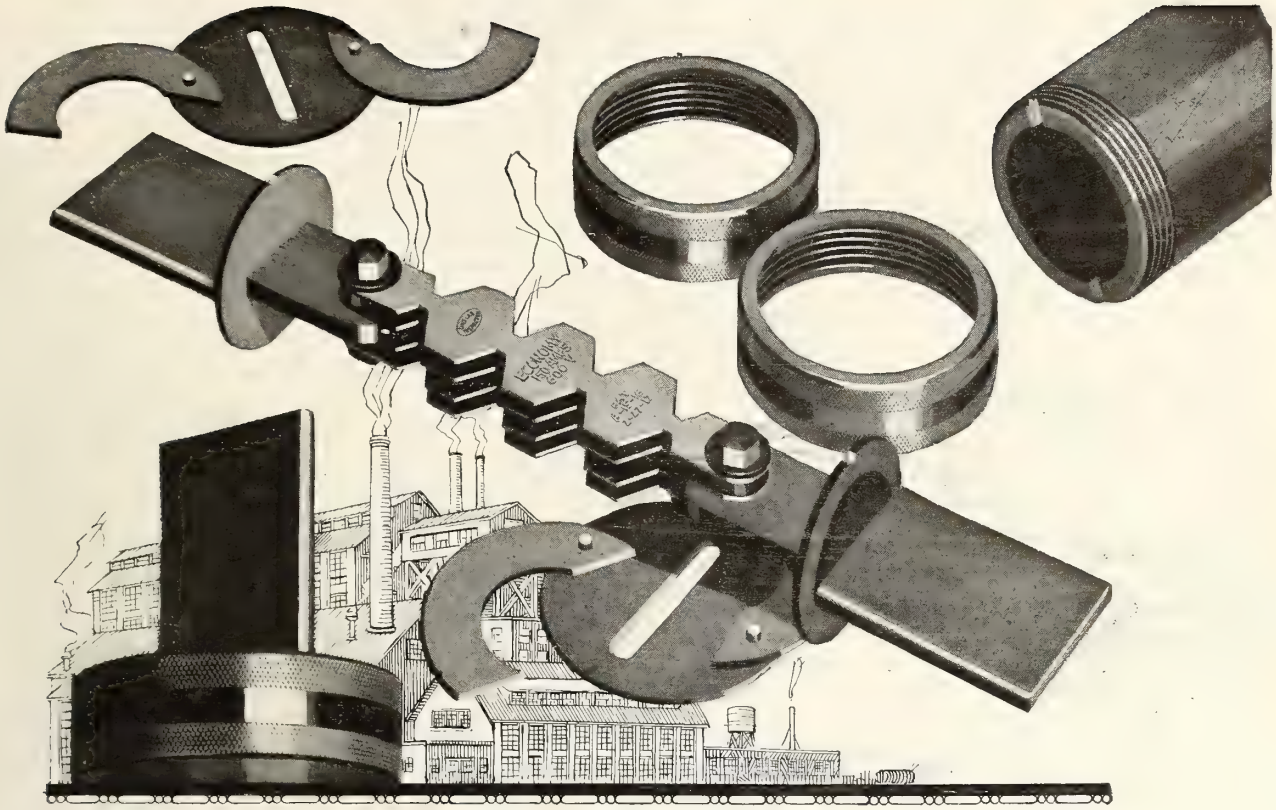
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EXTRA POWER BELTING



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have for years cut 80% out of the annual fuse maintenance costs of all industries using electrical energy.

The simple, accurately rated, inexpensive Economy "Drop-Out" Renewal Link is easily and quickly replaced when a fuse is blown.

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OF CANADA, LIMITED
Unity Bldg., Montreal - Canada

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The symbol on the link



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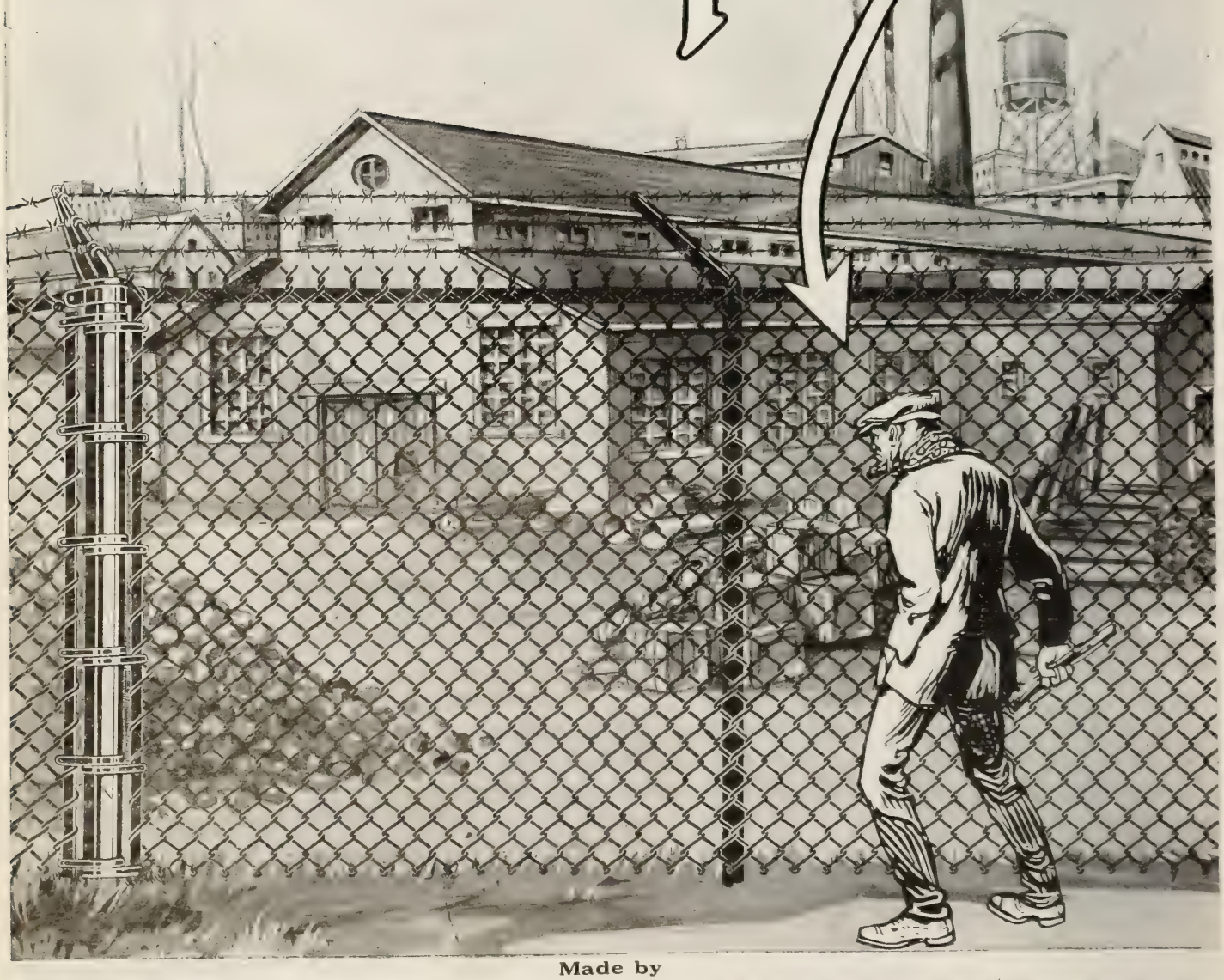
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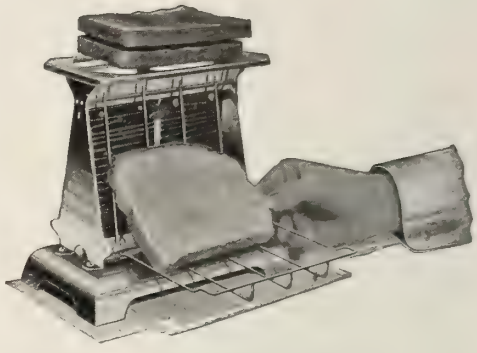
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CANADIAN WESTINGHOUSE

INDUSTRIAL CANADA

Issued monthly as the official publication of the Canadian Manufacturers Association (Incorporated), and devoted to the advancement of the industrial and commercial prosperity of Canada.

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Industrial Canada

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The Canadian Manufacturers Association
INCORPORATED

Vol. XXI. TORONTO, MAY, 1920 No. 1

Editorial Comment

The Changes of a Decade.

TEN years have elapsed since members of the Canadian Manufacturers' Association last crossed the prairies and held their annual convention in British Columbia. The interval has witnessed great changes, and those who have not taken the trip to the Coast since 1910 will see a wonderful metamorphosis. Villages have expanded into towns and towns into cities. Lines of transportation have multiplied. Much vacant land has been broken for cultivation. Many new industries have sprung into existence. On all sides there has been progress. The comparison of present-day conditions with those of a decade ago will afford 1920 excursionists opportunity for much interesting observation.

As for the Canadian Manufacturers' Association itself the ten years have meant great development. The membership committee of 1910 reported a total membership of approximately 2,600; this year's membership committee will be proud to show that the total has reached and exceeded 4,100. The Association's services have been very considerably extended; its staff has been doubled. The whole scheme of organization has been radically altered and new offices have been opened in several cities. Progress has taken place all along the line.

A note of sadness will, however, attach to the event when it is recalled that quite a number of the familiar figures of the earlier excursion will not be with the party. The president, whose genial personality added so much to the pleasure of the 1910 gathering—Mr. John Hendry, of Vancouver—is no more. His immediate successor in office, who took a prominent part in the convention of that year, Mr. H. H. Rowley, president of the E. B. Eddy Co., Ottawa, has also passed beyond. So, too, has that eloquent son of the coast province, Sir Richard McBride, whose speech on the occasion of the annual banquet was the outstanding feature of that memorable affair.

In other respects, this year's excursion bids fair to be a close replica of its predecessor. There was then entertainment all along the line in the cities traversed by the excursion train and pleasant stops in the mountains. In Vancouver and Victoria the hospitality of the excursionists' hosts was unbounded. On the return a diversion was made when the party travelled down to St. Paul and Minneapolis, where they were guests of the Commercial Club. This feature, of course, does not figure in this year's itinerary, but instead there will be the trip to Edmonton and thence over the Canadian National route to the Coast.

Not Good for Canada.

THE proposal recently made by the Post Office Department to introduce the zone system in Canada is a step which should not be taken without most careful consideration. Superficially it may seem reasonable that the distance to which an article is carried should have some bearing on the cost of carriage and that the charge for conveying magazines or newspapers to the Pacific Coast should be greater than that for carrying them but a few miles from the place of publication. But this is only one aspect of the case. The effect which the establishment of a zone system would have on the circulation of our newspapers, magazines and other periodicals must not be overlooked.

Canada, or at least the populated portion of Canada, comprises a long, narrow band stretching from coast to coast and adjoining the broad and prosperous expanse of the United States. The country is anything but compact, nor is it the easiest thing to maintain and promote common interests. Quite obviously national unity demands the freest possible intercourse from end to end of the country and the most frequent interchange of thought and opinion.

The newspaper and the magazine are important agencies in welding together the widely separated portions of the Dominion. Their national circulation is of the utmost value in bringing Canadians of the East and West together. To interfere with this circulation by establishing a zone system is a most serious matter. It may not involve a complete cutting off of circulation, but it will at least lessen the flow of printed matter and divert sub-

scriptions to the south thereby helping to build up north and south trade at the expense of east and west traffic.

Canada cannot afford to take chances, and it will be just as well for the sake of national unity and our common interests to refrain from any steps which will tend even in the remotest degree towards separation.

A Made-in-Canada Week.

THE experiment of the London Advertising Club in instituting a Made-in-Canada week appears to have been a wonderful success. The account of the week's events and the results accruing therefrom, which we publish in this issue, leaves little doubt on that score. There is every reason to believe that the people of Canada are now in a most receptive mood for any suggestion that the best interests of the country will be served by buying goods made in Canadian factories by Canadian workmen, and campaigns such as that launched in London should be held in other places. They can undoubtedly be made equally successful if the same degree of enthusiasm is interjected into the preparation and carrying out of the arrangements.

Not a Fair Analogy.

THE retention of the Business Profits Tax, announced by Mr. Austen Chamberlain, Chancellor of the Exchequer of Great Britain, is being used as an argument that the Business Profits War Tax Act should be re-enacted in Canada. This argument does not take into account the difference between the English Act and the Canadian Act.

The Tax under the Canadian Act, is levied on the profits of each year taken by itself. Thus, if a firm shows a loss for five years and a profit for the sixth year, it is taxed, under the Act, for the sixth year but no account is taken of the losses of the preceding five years.

Under the English Act, the profits to be taxed are determined by comparison of the profits earned in the year in question with the pre-war profits. The pre-war profits are arrived at in the following way:

(*a*) The average of any two of the last three pre-war trade years, the tax bearer to have the privilege of choosing which two,—or

(*b*) If (*a*) is less than 6% on the capital at the end of the last pre-war trade year, then 6% on the capital is taken as the pre-war standard,—or

(*c*) If the three last pre-war years were years of abnormal depression (i.e. where the average profits of the three last pre-war years were at least 25% lower than the average profits of the three preceding years) then any four of the last six pre-war years may be substituted for any two of the three last pre-war trade years as above.

The profits to be taxed having been arrived at as explained above, the percentage taken is at present 40%, though the present Budget proposes to increase it to 60%.

It is important to observe that, in the course of his budget speech, delivered in the House of Commons on April 19th, Mr. Austen Chamberlain, Chancellor of the Exchequer, according to the Associated Press dispatch, dated London, April 19th, and published in the Toronto *Mail & Empire* on April 20th, is reported as follows:

"Mr. Chamberlain said the result of the visit of the Commissioner sent to Canada, and the United States, to investigate the method of profits taxation, was the discovery that the methods adopted there were not suited to Great Britain."

Company Publications.

THE steadily increasing number of company publications being issued by industrial corporations in Canada is an interesting and significant development. It is a recognition that human nature dearly loves publicity, and that the affairs of the group of people associated together in a factory has a real and vital interest to each member of the industrial family. Some of the Canadian publications are indeed wonderfully complete in their record of what is going on in the shop, the office, the home, and the community. All this helps to maintain good feeling, to inspire loyalty, and to bring about the most effective co-operation. The investment in a company newspaper or periodical is well worth while if it has these results, and judging from the way in which new ones are appearing from time to time, it would appear as if they were proving effective instruments.

A New Type of Bank.

IT is announced in New York that the first charter for a foreign banking association formed under the provisions of the Edge bill and intended to enable American manufacturers to compete in foreign markets on a credit basis, has been granted by the Federal Reserve Board to the First Federal Banking Association, of New York, capitalized at $2,100,000.

As the purpose of the bank is to build up an expert organization to study foreign credit problems, it was decided, the announcement says, to limit its shareholders to banks, manufacturers, and others interested in foreign trade. Manufacturers participating as stockholders will have first call on the bank's facilities. The entire stock of the association, consisting of 20,000 shares of $100 par value and 1,000 founders' shares, has been underwritten at $105 a share.

"The commercial banks of this country are deposit banks, obtaining their working capital from their depositors," explains Chairman Kies. "The principles of sound banking require that their funds be kept liquid and that

credits issued by them be for a short term only. The Edge bill in effect provides for the establishment of a new kind of bank which shall obtain this working capital from the investors of the country through the sale of the bank's obligations or through the use of its guarantee in connection with the paper of American manufacturers and exporters, based in turn upon the credit of their foreign customers.

"While at the moment the great majority of manufacturers have more domestic business than they can handle, nevertheless the time will come when markets for our surplus capacity will be a necessity, and when this time comes our manufacturers will find themselves without foreign markets, unless continued efforts are made to maintain, so far as possible, their present position in these markets."

This development will have considerable interest for all Canadian manufacturers who have foreign trade ambitions.

A Timely Publication.

VALUABLE service has been rendered by the Department of the Interior, Ottawa, in compiling and publishing a resource map of the Dominion. This is a time, if ever there was one, when knowledge of our resources is greatly needed. With a world shortage in many lines, there is urgent need for production and anything that can be done to help on the movement towards greater production will be of value.

On the map, which measures 35 x 19 inches, giving a scale of 100 miles to the inch, varieties of mineral, agricultural and fishery resources and timber and fur in general are printed in red lettering in their proper locations. The sites of important water powers, developed and undeveloped, are indicated, and the lines of all railroads completed up to date are clearly defined.

The resources shown on the map extend from "whales" near Herschel Island in the Arctic to "salt" at the southern toe of the Ontario peninsula, and from the "white whales" of Ungava Bay to the fruit lands near Victoria, B.C. An important inset contains five circular diagrams, showing the comparative contributions of each province to field crops, commercial timber, developed water power, fisheries and minerals. A sixth diagram displays the proportion of the total exports filled in 1918 by manufactures and by the five great classes of natural resources severally.

This is a publication which should have a wide distribution, for there is no telling where the seed may not fall that will ripen into important developments in various parts of the country.

The Fallacy of Wage Increases.

IN a recent editorial the *Saskatoon Phoenix* comments very sensibly on the folly of supposing that wage increases are going to relieve the pressure of increasing living costs, unless the increases go hand in hand with a greater output of commodities.

"We have on previous occasions," says the *Phoenix*, "pointed out that the demands that are being made to-day for heavy wage increases, ostensibly because of the increasing cost of living, are themselves a factor in that increasing cost, and as there is no real increase in wealth production out of which the increases can come, such increases must of necessity be made at the cost of the community. It is one thing to urge an increase of wages; it is quite another to secure that increase without affecting adversely some other section of the earning classes. Only when there is a general increase in the wealth production of the community is it possible to improve the condition of the community as a whole, and even if there were a complete transformation of the economic structure and all wealth went to the producers of it, there could be no progressive improvement of the condition of the community except by a progressive increase of production, and even then the increase of population would provide a problem which few reformers to-day deign to notice. The industrial world of to-day is but a battling of sectional interests and as long as one gains, it cares little how the others fare. Bootmakers, for example, demand and get an increase of wages and the employers simply advance the price of boots and other working men help to pay the increase, suffering thereby a decrease in their real wages, that is the purchasing power of their money wages. And the same thing applies in other trades, the workers apparently failing to realize that every rise in prices is equivalent to a fall in wages. Assuredly the solution of what is undoubtedly a grave problem will never be reached by the way of class or sectional individual selfishness, and a clear recognition of that truth is a necessary preliminary to discovering the real way."

The Development of Raw Materials.

UNDER the caption "Precept and Practice," the *Regina Leader* comments rather caustically on the item appearing in these columns recently about the use by Canadian manufacturers of envelopes made in the United States. The *Leader* claims that the manufacturers of Canada are the worst offenders when it comes to buying American raw materials and products when equally good or better supplies can be secured in Canada or their production developed here.

"Our manufacturers," declares the *Leader* accordingly, "have continued to import materials from across the line, because it was easier than to organize companies and employ their capital in the development of the national resources of Canada and thereby provide supplies of needed raw materials at home.

"Many an Ontario and Quebec manufacturer is living in a fool's paradise, by relying to an altogether too great extent upon the importation of raw and semi-manufactured materials from the United States. During the war, when the United States Government found it necessary to impose an embargo on exports, many Eastern manufacturers would have found themselves in desperate straits but for

the fact that Canada was generally exempted from the operation of such embargoes. Nevertheless, we did have the spectacle of numerous appeals to Washington to help Canada out in regard to various lines of raw materials, some of which could have been obtained in Canada had the manufacturers displayed a little foresight and employed some of their surplus wealth acquired under the so-called National Policy of protection to the development for use of our own natural resources. Had the United States not displayed a friendly attitude towards Canada, many an Ontario and Quebec manufacturing industry would have collapsed like a house of cards.

"It was to develop these resources that a protective tariff was inaugurated; protection was not meant merely for the finished products of manufacture, but to encourage the production within Canada of everything entering into such finished products. Protection so operated in the United States, Germany, and other countries, but in Canada the development of our own resources has not been undertaken in the same systematic way by the men engaged in the manufacturing industry. Much of the development that has taken place stands to the credit of American and British capital and enterprise.

"It is high time that Canadian manufacturers, individually and collectively, awaken to the necessity of securing a larger proportion of their raw materials in Canada, and abandoned the easy-going policy of depending on imports, developed from natural resources by the energy and capital of other countries and men than themselves."

The *Leader* means well and we are in full accord with its desire to see this country become more self-contained, but it is perhaps a little unfair not to give greater credit for the work already done. Practically every issue of this publication records the manufacture in Canada of products not hitherto made in the Dominion, while the record of progress disclosed in the 1920 edition of the Canadian Trade Index is most impressive. Industrially, Canada is still young and time must be allowed to get the new industries started.

Three Labor Declarations.

AN effort is being made to introduce into the constitution of the State of Illinois three declarations with regard to the powers of labor that may prove far-reaching in their effect and should be watched closely.

The first postulates that "the labor of a human being is an attribute of life and is not property."

The second declares that "the right of workmen to organize into trade and labor unions and to deal and speak through representatives chosen by themselves is declared and it shall not be abridged."

The third states that "no court, tribunal, judge nor any officer or official shall by any process, order, injunction, restraining order, decree or proclamation abridge the right of any workman to quit any employment either singly or in concert, nor the right of by peaceful persuasion, picketing, assemblage or the payment of strike benefits inducing others so to quit or refrain from working, nor shall any such acts be made or held to be unlawful, or to constitute an unlawful conspiracy. Nor shall any such process, order, injunction, restraining order, decree or proclamation interfere with the exercise of the legitimate functions of any organization formed for the purpose of advancing the interests of those who labor."

Mr. Charles Piez, president of the Link-Belt Company, Chicago, speaking before the Illinois Constitutional Convention, comments on these proposals from the economic and industrial standpoint. Respecting the first his view is that the state should not single out any group or class for special treatment, but should guarantee to each and every citizen equal rights, protection and participation in the Government. Without such a declaration, the State of Illinois has been a leader in the recognition of human rights in industry and to-day, beyond a few insignificant amendments to existing acts, there exist substantially no demands for any basic remedial industrial legislation.

With regard to the second declaration, Mr. Piez sees no reason for the first part of the section, because the right of workmen to associate in a lawful manner for lawful purposes has already been generally acknowledged and has not, within his memory, been questioned. To the second part of the section, however, he does object. It means compulsory collective bargaining. Its objectionable feature is that "the provision carries with it no restrictions of any kind, prescribes no fair method for determining the choice of the representative and calls for no collective responsibility to observe the agreements arrived at. It does, however, open up the opportunity to every agitator, to every professional trouble-maker, by false promises, by lies and treachery, to organize a raid against any industry whose profits hold out the hope of rich booty. And it denies to every workman or employer who wishes to retain his freedom of action, the right to work or conduct his business."

Mr. Piez believes that the tendency of the future will be towards greater control, greater restriction and the imposition of greater accountability, not the granting of greater power; or as he forcibly puts it, "The right of the worker to strike can certainly not be declared superior to the right of the public to live."

So far as the third declaration is concerned, Mr. Piez says that in his thirty years' experience as an employer, he has failed to meet any cases of peaceful picketing or peaceful persuasion. A strike, he adds, is not exactly an afternoon tea in which conversation is plentiful, but harmless. It is not as a rule conducted through persuasion or peaceful picketing; but it involves the absolute denial of the right of the employer to conduct his business and a denial of the right of other men to remain at work or to seek work. A just cause will win through public support, in the face of an unfair employer, and an unjust cause should not be permitted to prevail through intimidation and violence.

The Situation at Ottawa Reviewed

Introduction of the Budget the Outstanding Event of the Session—Much Condemnation of Business Profits Tax has been Voiced—Sir Robert Borden Expected Back Before Prorogation Which Takes Place Early in June

By Industrial Canada's Parliamentary Correspondent

OTTAWA.—The Budget is the soul of a session. Until it comes affairs falter and drag. After it has been delivered discussion dates from it and chiefly concerns its contents. From the beginning of the present session the eyes of members and Senators have been turned in the direction of the Budget with more than ordinary eagerness. It is recognized that the first Budget of the new Finance Minister is a difficult task. Demands on the treasury are so heavy that Sir Henry Drayton has had to regard, as his first consideration, the problem of increasing revenue. Part of that problem has been some plan for the distribution of taxation, so that the industrial life of the country may not be injured and the tax-paying capacity of the country thereby reduced as a whole.



Sir Henry Drayton

Minister of Finance in the Union Government who is introducing his first budget at the present session of parliament

Never since Confederation has a measure been so protested against as has the excess profits tax. From every part of the country have come declarations that in its operation this tax was strangling the business life of the community; blockading industrial expansion; preventing the investment of new and foreign capital; and weakening the standing of the strongest industrial concerns of the Dominion. The condemnation has not been entirely from the outside, nor this year alone. When he introduced the excess profits tax, Sir Thomas White frankly stated that it was an emergency war measure that peace conditions would never justify. He promised that it should not be inflicted upon the country for more than three years; in fact, he intimated that the country could not stand more than the three years' application of this form of taxation.

Necessity extended the life of the measure beyond the promised period. It was not wanted by the Finance Minister who originated the plan; it was not commended by Hon. A. K. McLean, when he was forced to ask Parliament to extend its term; it is not liked by the present Finance Minister. This child of necessity has never had popularity, and now it is losing its sole virtue-earning power. When it goes it will depart forever, and will only be remembered as one of the noxious developments of war, the outcome of unavoidable conditions.

The income-tax, which was regarded as an impossibility, is proving on trial better than expected. The Commissioner of Taxation, Mr. Breadner, has succeeded in making a surprisingly extensive list of income-tax contributors. It is well known that the list is by no means complete, and that there are a good many tax-dodgers in the country, but they are being rounded up, and not a small part of the income taxation returns is gathered in the form of fines imposed upon knowing delinquents. The making of an income-tax list is a very great task. Britain has had income-tax for many years as its chief form of taxation, and even in that country, after an experience of almost a century, the list of contributors is not regarded as complete. The success of the plan in Canada assures its continuance. For all time in the future Finance Ministers will have statements of income-tax returns as a principal feature of their Budgets.

There has been a good deal of investigation by the Finance Department officials into a plan for a sales tax. The experience of the United States, where there has been a sales tax on luxuries, has been examined by Canadian officials. The chief factor which has led to hesitance in adopting this form of taxation is the absence of any statistics indicating the gross sales over Canadian counters. It has been found impossible to estimate what a one per cent. tax on all the sales of the country would yield in a single year. If this form of tax is applied in Canada to meet the needs of the Treasury, it is likely to be limited in the first instance, so that experience may give a measure of its burden on the people and of its worth as a revenue producer.

Campaign contributions have been condemned from time immemorial. The party system was subjected to its most severe condemnation for the collections that it was alleged to make from those who benefited from tariff and other legislation. Efforts have been made to abolish campaign funds by proposals that there should be publicity required

as well as by direct legislation. The campaign fund has been one of the grievances that the organized farmers have held against the manufacturers, whom they charged with making heavy payments to keep their friends in power so that those friends could continue to legislate for the benefit of the contributors.

There has been a good deal of amusement in Parliament over the attitude of the farmer representatives in protesting against a section in the new franchise law providing that no contributions for political purposes may be made except by political organizations. Representatives of the organized farmers of the country protested most vigorously against their associations being barred from entering the political struggle with their money. They were not satisfied even when it was shown them that the provision was not new, but has been a part of the law of the land since 1908. From the protest that was made to Parliament it was made clear that the farmer organizations are prepared to go into the next general election battle prepared to finance the campaigns of their candidates. Criticism of campaign funds has given place to condemnation of legislation to abolish them. The affair is taken as another revelation of how men's minds change when they cease to be spectators and become participants in affairs.

Grand Trunk Legislation.

Heavy deficits in the operation of Government railways spiced up a debate on the Government's bill by which the taking the Grand Trunk will be completed. Omissions from the act of last session made it necessary for the Government to bring in a bill accepting a couple of branch lines that had been forgotten when the Grand Trunk system was taken over. It was also found desirable to ratify the action of the Grand Trunk shareholders. The bill of this session puts Canada into full possession of the system, and will enable the management of the Canadian Government railways to amalgamate the Grand Trunk in the fullest way, so that the utmost may be realized by the other Government lines from this system.

A recent feature of Parliament, in which there was considerable interest shown, was a statement of his war work by Hon. Mackenzie King, the Liberal leader. Mr. King stated that much of his work had been the promotion of industrial peace among the producers of war materials, and he believed that he had accomplished more useful work there than if he had been able to go to the front.

A surprising volume of opposition developed in Parliament, largely among Government supporters, to a proposal by the Government that the War Purchasing Commission should be continued and given charge of all the buying for all the departments of the Government. Critics of the bill stated that the Commission has not shown an effectiveness that justifies the enlargement of its scope, or even its further existence. From both sides of the chamber members declared that buying by departments would be better than one central buying body. The Government, although it brought in the bill, is not particularly warm for it. Withdrawal has been hinted at in high quarters. It is regarded as not unlikely that the measure may go to the dust heap with other unfinished legislation when prorogation comes.

Sir Robert Borden's Return.

Word from Sir Robert Borden is that he will reach Parliament shortly before prorogation, assume the management of Canadian affairs, and commence the work of organizing a political party to bring the Government through the next general election. The news from the south is that Sir Robert appears to enjoy greatly improved health. His friends are beginning to feel some confidence in statements that his long rest has so recruited his health that he will be able to give the country the benefit of his leadership for many years.

The Canadian navy is to be reorganized on a modest basis. Hon. Mr. Ballantyne, minister for Naval Affairs, adopted the drastic and effective method of abolishing the organization that had been developed during the war and making a fresh start. This enables him to retain factors of the service that proved effective and drop those which failed to make good. The Naval College is continued; a cruiser and two destroyers have been accepted from Britain as craft on which a naval militia can begin training operations. Until the finances of the country and its naval needs warrant, the force of Canada on blue water is likely to be in commerce, in the form of a merchant marine, rather than in war-like preparations afloat.

The Militia and Military Flying.

Canada is not going out of war preparations altogether. The militia is being reorganized and there is to be, for the first time, an air force in connection with it. Canadians did so well in the air during the war, and the wide spaces of the country lend themselves to speedy spanning, that there is a feeling that the country is justified in giving aid to military flying.

The session is expected to end about the first of June.



A Great Pacific Coast Shipyard

This is a General View of the Big Shipbuilding Plant of J. Coughlan & Sons, Vancouver, Showing a Number of Large Steel Ships in Various Stages of Construction

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Executive Council Meeting

The last Executive Council meeting of the Association's year was held in the King Edward Hotel, Toronto, on Thursday, April 22. The president, Mr. T. P. Howard, was present, and occupied the chair. There was a good representation of members and business was transacted smoothly and with expedition, reports being presented by the Treasurer, Executive Committee, Tariff, Transportation, Insurance and Legislation Committees, and the Secretary of the Ottawa office.

Food and Drugs Act

A drastic bill giving to the Governor-in-Council power to prescribe the shape and size of all packages containing food and drugs, and the color, size and contents of all labels on such articles was introduced at the present session of Parliament. It provided that the weight, measure and number should be correctly stated on the outside of all sealed packages carrying the manufacturer's name and address. No provision was made for the postponement of the enforcement of the Act until stocks on hand had been disposed of.

In order to secure the withdrawal of objectionable features, a delegation of manufacturers visited Ottawa and interviewed Hon. N. W. Rowell, who had the bill in hand. Much other work was done, and as a result of the efforts of the Association the measure was amended practically along the lines suggested.

Western Delegation at Toronto

Prior to the holding of the Executive Council meeting on April 22, a luncheon took place in the King Edward Hotel, at which an influential delegation of Westerners were guests of honor. The party included Mayor M. A. Brown, Medicine Hat; James Ramsay, M.P.P., Edmonton; Brigadier-General H. J. McDonald, C.M.G., D.S.O., Lethbridge; Col. J. Y. Reid, Winnipeg, and A. E. McKenzie, Brandon. The purpose of the visit of these gentlemen to the East was to work up interest in the Alberta Industrial Congress and the new Western Colonization Association.

Mayor Brown, who was the first speaker, dealt with the general principles underlying the work of the two organizations. He explained that they were endeavoring to bring about a better feeling between the East and West, which would be fostered by the co-operation of Eastern manufacturers in the development of Western resources, and by their assistance in solving the problems of colonization and settlement.

Mr. Ramsay's theme was the natural resources of Alberta. He presented some interesting figures, showing the extent of the manufacturing industries in the province, referred to the immense coal deposits awaiting development, and devoted some attention to the subject of oil.

General McDonald, who is secretary of the Alberta Industrial Congress, outlined the plans which had been prepared for the meetings and entertainment to be undertaken during the visit of the C.M.A. to the cities of Alberta in June. Colonel Reid, representing the Winnipeg Board of Trade, and Mr. McKenzie, representing the Brandon Board of Trade, were present to endorse the proposals of the Western Canada Colonization Association, under which a large sum of money will be raised to co-ordinate colonization efforts.

The speeches of all these gentlemen were listened to with much attention, and at their conclusion a vote of thanks, moved by Mr. J. H. Sherrard and seconded by Mr. R. L. McIntyre, was carried unanimously.

Manitoba Workmen's Compensation

The Legislation Committee reports that a Workmen's Compensation Act has been passed by the Manitoba Legislature, providing for the administration of compensation to workmen through a State fund, to be collected and administered by a Commission. This Act increases the compensation paid to injured workmen from 55 per cent. to 66⅔ per cent. It reduces the waiting period from six to three days. It increases the pensions paid to widows and children from $20.00 and $5 per month, respectively, to $30.00 and $7.50 per month. The allowance for funeral expense is increased from $75.00 to $100.00. Labor's request was for 100 per cent. compensation. While the Government did not grant this request, it has provided greater benefits for workmen than apply elsewhere in Canada.

Presentation to Mr. Parsons

A pleasing feature of the luncheon given by the Association on April 22 in Toronto was the presentation to Mr. S. R. Parsons of an illuminated address, expressing the appreciation of his fellow-members of the C.M.A. of the work done by him as Canadian employers' representative at the International Labor Conference in Washington, D.C., last fall. The presentation was made in a few appropriate words by Mr. T. P. Howard, the president, after which Mr. Parsons returned thanks to the donors, and gave a few impressions of developments since the Conference in regard to 8-hour day legislation.

Board of Commerce Special Case

The Supreme Court of Canada adjourned on March 25th, without handing down judgment in the Board of Commerce case, and it is understood that the Court desire to hear counsel again. The judgment will decide the status of the Board of Commerce as a price fixing tribunal, and its power to compel the marketing of commodities and to fix prices and fix penalties for the infringement of its orders. It will

also decide whether Parliament has power to create the Board of Commerce, vesting in it such powers as it claims to possess. The question of provincial rights is vitally affected in the decision. Mr. W. N. Tilley, K.C., appeared as special counsel for the Association.

Chemical Research in Manitoba

The Executive Committee of the Winnipeg Branch has been advised through one of its members, Mr. W. G. Fraser, that the chemists of Manitoba have formed an association, known as the Manitoba Society of Chemistry, for study and research work. Dr. J. W. Shipley, B.A., assistant Professor of Chemistry, University of Manitoba, is secretary. The Society is prepared to place any member of the Canadian Manufacturers Association desiring the services of an expert chemist in touch with a qualified man, who will be in a position to assist in chemical research.

Ontario Assessment Act

The City of Toronto, having intimated that it proposed to submit an amendment to the Ontario Assessment Act, having in view the assessing of income represented by dividends derived upon stocks in industrial and commercial companies, which enactment has hitherto been refused by the Legislature, the Ontario Legislation Committee, having considered the matter very carefully, invited the co-operation of the Canadian Credit Men's Association, and instructed Mr. A. C. McMaster, K.C., as joint special counsel, to oppose this legislation, on the ground that such companies already pay the business assessment; and that the proposed amendment would infer marked discrimination as between partnerships, individual concerns and incorporated companies.

Patent Act

A bill having been introduced in the Dominion House to amend and consolidate the Acts relating to Patents of Invention, the legal secretary submitted copies of the bill to various manufacturers believed to be interested, and also consulted with several patent attorneys. With this information, the Legal Department prepared a brief which was submitted personally by the legal secretary to Mr. Geo. F. O'Halloran, Commissioner of Patents, Ottawa, on April 13th. After discussion, the Commissioner intimated that the suggested amendments would be adopted. It is believed that the new bill will be a great advance on any previous legislation on the subject in Canada.

Meeting of the Brantford Branch

A special meeting of the Brantford Branch was held in the Canadian Club, Brantford, on Thursday, April 8th, 1920. Mr. C. A. Waterous, of the Waterous Engine Works, chairman, presided, and Messrs. J. E. Walsh, general manager; J. R. K. Bristol, manager tariff department, and H. Macdonald, legal secretary, were present as guests of the branch. There was a large attendance.

Mr. Walsh gave an outline of the services of the association, describing plans for the extension of the work in all departments. Mr. Bristol explained the necessity of a protective tariff, pointing out that all civilized countries are obliged to resort to this method for the protection of national trade.

Mr. Macdonald referred to the important functions to be performed by local branches, subsidiary to the divisional organization, which was finally responsible to the Executive Council and to the association, as a whole. He explained the organization of the legal department, which was responsible for checking all legislation and for amendments, in the interests of industry, to new enactments, as introduced from time to time. He gave instances of substantial monetary benefits obtained for members by skilful and vigilant treatment of manufacturers' problems.

The visitors were unanimously accorded the thanks of the branch for their attendance and information.

Mr. George Hately, the efficient secretary of the Brantford Board of Trade, is acting secretary of the branch.

It was stated by the chairman that a local campaign for one hundred per cent. membership would be arranged on an early date.

Bankruptcy Act

The Dominion Bankruptcy Act will become effective on July 1st next, by proclamation of the Governor-General. Meantime, an amending bill has been introduced in the Dominion House by Mr. S. W. Jacobs, K.C., Montreal, providing: (1) That a trustee must deposit, in a separate bank account, the respective proceeds of each estate; (2) for the payment of remuneration to inspectors for services to bankrupt estates; (3) and rescinding the provision in the original Act against unwarranted petitions in bankruptcy. There is no apparent objection to these amendments, which have been suggested by mercantile and financial interests.

Committees for Next Year

An appeal is being made to the membership of the Association for volunteers to man the various standing committees next year. It is regarded as most important that the members constituting the committees should represent all parts of Canada and all kinds of industry. At the present time the problems confronting industry are as important as they are varied, and it is essential that members offer their services in order to make the committees as representative as possible.

Activities of the Montreal Branch

By R. W. GOULD
Secretary, Quebec Division, C.M.A.

The annual meeting of the Montreal Branch will be held on May 12. The date was fixed at a meeting of the Executive of the Branch, held in the Engineers' Club on April 15. The date is somewhat earlier than last year, but the Executive desires to have the local Branch matters cleaned up early, so that they may not clash in any way with plans for the annual convention.

A strong delegation from the Montreal Branch went to Ottawa last month, to place its objections before Hon. N. W. Rowell, to Bill No. 27. The Foods and Drugs Act was viewed by the manufacturers affected with considerable apprehension, and, after three local meetings, gathering data on the subject, a delegation, headed by T. H. Wardleworth, of the National Drug Company, went to Ottawa. Others who accompanied him were Colonel Lumm, of S. H. Ewing & Sons; G. F. Benson, of the Canada Starch Company; a representative of the Atlantic Sugar Refineries, and other large interests involved. The delegation returned highly pleased with the result of the interview, receiving assurances from the minister that certain objectionable features of the bill would be cut out entirely and other clauses so amended as to meet the views of the purveyors of foods and drugs.

Quebec Province, by reason of its fortunate labor conditions, is attracting American industries all the time. Subsidiary plants of the Kenworthy Brothers, Jencks Spinning Company, and the Locomotive Superheater Company, have

located in the province during the past few weeks. Two of these have already applied for membership, and the application of the third is promised during the course of the next few days. Kenworthy Bros. have gone to Drummondville, the Jencks Spinning Company to St. Johns, and the Locomotive Superheater Company to Sherbrooke. Other firms in the United States are making enquiries for factory sites within the province.

Up to the present time about a dozen members of the Montreal Branch are planning to take the trip to Vancouver during the first days of June, in order to be present at the annual convention of the Association. There are hopes that a sufficient number may be recruited in Montreal during the coming fortnight to have a Montreal car on the special train.

A well attended luncheon meeting of the Branch was held in the Rose Room of the Windsor Hotel on Tuesday, April 27th, when the members heard splendid addresses from officials of the Alberta Industrial Development Association. The speakers were His Worship Mayor Brown, of Medicine Hat, president of the Association; James Ramsay, M.P.P., of Edmonton, and Brig.-General H. J. McDonald, C.M.G., D.S.O., the general manager of the Association. The Western viewpoint was placed before those present, and the meeting promises to have done a considerable amount of good in the propagation of a condition of better understanding between the East and the West.

Further steps have been taken toward the establishment of a branch at Three Rivers, in the autumn of this year, and a comprehensive programme of organization will soon be fully mapped out. The Sherbrooke Branch has been keenly alive to the activities and problems of its members, while the Quebec Branch is tackling its problems with that zest and enthusiasm which is peculiar of the French race.

F. W. Stewart, the vice-chairman of the Montreal Branch, who has been spending a few weeks at Pinehurst, N.J., has returned to the city, and is throwing himself into the work of the division with his accustomed enthusiasm and energy. C. Howard Smith, who is at present on a holiday trip to the West Indies, is expected home early in May, and his effectiveness as vice-chairman of the Quebec Division will [illegible] be felt.

The decision of the Executive of the Branch some time ago to have cards printed bearing a brief summary of the services of the Association, to be hung in the offices of members, are now out, and being distributed. They have been printed in two sets, one in French and the other in English.

The Graphic Arts section has held several meetings during the month with respect to the new demands by the printers. Negotiations have gone along smoothly, and difficulties which were at first threatening have been amicably surmounted. W. A. Desbarats, who for two years has been chairman of the section, has closed his tenure of office, and left on April 22nd for a two months' holiday trip to the United Kingdom and on the Continent.

Annual Meeting Itinerary

FOR the benefit of those who may have overlooked the previous publication of this itinerary, the schedule of dates and stopping-places is again reprinted as follows:—

Via Canadian Pacific Railway

Lv. Toronto	10.00 p.m.	Saturday	May 29
Ar. Winnipeg	1.30 p.m.	Monday	May 31
Lv. Winnipeg	11.59 p.m.	Monday	May 31
Ar. Brandon	3.50 a.m.	Tuesday	June 1
Lv. Brandon	10.00 a.m.	Tuesday	June 1
Ar. Regina	4.30 p.m.	Tuesday	June 1
Lv. Regina	6.45 p.m.	Tuesday	June 1
Ar. Moose Jaw	7.55 p.m.	Tuesday	June 1
Lv. Moose Jaw	11.00 p.m.	Tuesday	June 1
Ar. Medicine Hat.	8.00 a.m.	Wednesday	June 2
Lv. Medicine Hat.	1.00 p.m.	Wednesday	June 2
Ar. Lethbridge	5.00 p.m.	Wednesday	June 2
Lv. Lethbridge	1.30 a.m.	Thursday	June 3
Ar. Calgary	7.00 a.m.	Thursday	June 3
Lv. Calgary	12.30 a.m.	Friday (approx.)	June 4
Ar. Edmonton	8.45 a.m.	Friday	June 4

Via Canadian National Railways

Lv. Edmonton	8.00 p.m.	Saturday (approx.)	June 5
Ar. Vancouver	7.00 a.m.	Monday (approx.)	June 7

Via Canadian Pacific Railway

Lv. Vancouver	10.30 a.m.	Thursday (C.P.SS.)	June 10
Ar. Victoria	4.30 p.m.	Thursday	June 10
Lv. Victoria	2.30 p.m.	Friday	June 11
Ar. Vancouver	7.00 p.m.	Friday	June 11
Lv. Vancouver	8.30 p.m.	Friday	June 11
Ar. Lake Louise	8.45 p.m.	Saturday	June 12
Lv. Lake Louise	4.00 p.m.	Sunday	June 13
Ar. Banff	5.00 p.m.	Sunday	June 13
Lv. Banff	10.00 p.m.	Monday	June 14
Ar. Calgary	12.45 a.m.	Tuesday	June 15
Lv. Calgary	1.45 a.m.	Tuesday	June 15
Ar. Winnipeg	6.00 a.m.	Wednesday	June 16

Via Rail—Winnipeg to Toronto

Lv. Winnipeg	6.00 p.m.	Wed'day (C.P.R.)	June 16
Ar. Ft. William	7.00 a.m.	Thursday (C.P.R.)	June 17
Lv. Ft. William or Pt. Arthur	3.00 p.m.	Thursday C.P.R.)	June 17
Ar. Toronto	8.00 p.m.	Friday (C.P.R.)	June 18

Via Lake Route—Winnipeg to Toronto

Lv. Winnipeg	7.00 p.m.	Thursday (C.P.R.)	June 17
Ar. Ft. William	8.00 a.m.	Friday (C.P.R.)	June 18
Lv. Pt. Arthur	1.00 p.m.	Saturday (C.P.SS.)	June 19
Ar. Toronto	11.45 a.m.	Monday (C.P.R.)	June 21

Industrial Meeting at Niagara

Programme Announced

The municipalities comprising the Niagara District Industrial Association will hold a three days' congress on August 2, 3 and 4. To it will be invited United Kingdom and United States manufacturers, who have in prospect the establishment of Canadian branches of their industries, with a view to showing them the advantages of the district as a location for manufacturing plants. The programme of entertainment is as follows:

Monday, August 2nd

Noon.—Luncheon at the Refectory, Queen Victoria Niagara Falls Park, as guests of Queen Victoria Niagara Falls Park Commissioners.

Afternoon.—The Falls of Niagara, the world-famed power plants, and the Chippawa-Queenston Power Development, now under construction by the Hydro-Electric Power Commission of Ontario.

Evening.—Banquet at the Clifton Hotel, Niagara Falls, addressed by the Dominion Ministers of Trade and Commerce, Railways and Canals, and Labor.

Tuesday, August 3rd

Morning.—Motor trip on the Niagara Boulevard (skirting the majestic Niagara River) to Bridgeburg and old Fort Erie, thence to Crystal Beach for luncheon.

Afternoon.—By boat to Port Colborne. Two hours for inspection of the largest flour mill in the British Empire,

the largest nickel plant in the world, and the Canadian Government elevators. Then by boat down the Canal to Welland.

Evening—Banquet at Welland, followed by motor trip to St. Catharines.

Wednesday, August 11th

With St. Catharines as Headquarters. An inspection of the Welland Ship Canal, and a visit to Port Dalhousie, Merritton and Thorold.

The municipalities comprised in the Niagara District Industrial Association are the cities of St. Catharines, Niagara Falls and Welland; the towns of Merritton, Thorold, Port Colborne and Bridgeburg; the villages of Port Dalhousie, Humberstone and Fort Erie, and the townships of Grantham, Thorold, Crowland, Humberstone and Bertie.

W. M. German, K.C., Welland, is president; H. P. Stephens, Mayor of Niagara Falls, 1st vice-president; E. J. Lovelace, Mayor of St. Catharines, 2nd vice-president; G. W. Sutherland, Mayor of Welland, 3rd vice-president; Louis Blake Duff, Welland, secretary.

Australian Tariff Explained and Discussed

Mr. Mark Sheldon Speaks

A meeting at which a number of members of the Association were given an opportunity to learn something about the new Australian tariff was held in the Association rooms, Toronto, on April 8. The guest of the Association on this occasion was Mr. Mark Sheldon, Commissioner in the United States for the Commonwealth of Australia. Mr. G. W. Watts occupied the chair and introduced the speaker.

Mr. Sheldon explained that the new Australian tariff, which became effective on March 25, was highly protective and that, while still giving a preference to the United Kingdom, it at the same time provided for an increase in the rates of duty on importations from the United Kingdom.

Canada had in the past quite a trade with Australia in cotton piece goods, haberdashery, etc., and Mr. Sheldon stated that he thought the new tariff would seriously affect such exports. He mentioned that among Canada's chief exports to Australia were lumber, newsprint paper, canned salmon and agricultural machinery, but pointed out that only 2 per cent. of the imports into Australia are from Canada, while 25 per cent. are from the United States.

Importations from Canada are dutiable under the general tariff. There is also an intermediate tariff, which might be called a bargaining tariff. As to the possibility of Canada being placed under the preferential tariff, this would be a matter for bargaining between the two countries. Mr. Sheldon stated that he would be pleased to place before his Government any views which might be expressed by the manufacturers, and he felt that there would be a strong sentiment in Australia for trade as between the two countries.

Referring to the progress of Australian industry, Mr. Sheldon said that there were about 15,000 manufacturers in the country. The key industry is steel and Australia has now started to produce steel. There are large deposits of ore, and coal lies along the seaboard of the east coast. Under the new tariff the steel industry is given protection. Requirements of steel rails and girders, which have been standardized and the number of grades reduced to about forty, will be supplied from the steel industry at Broken Hill.

Australia is also going into the tin plate industry, the Lysaght firm being interested in the establishment of a plant to manufacture galvanized iron and tin plate. Another industry to be developed was the wool top industry and latterly all domestic requirements in woollen hosiery have been produced in Australia. The glass industry is also widening out and window glass is now being manufactured.

Following Mr. Sheldon's address, several members present participated in a discussion of Canadian-Australian tariff relations. Mr. S. R. Parsons expressed the opinion that there was nothing more desirable that could be worked out than some sort of a preferential tariff between the two countries and urged manufacturers to make a thorough study of the situation. Mr. Lloyd Harris followed with a review of what had been done by the Canadian Mission in London to promote closer trade relations between the different parts of the Empire. He stated that while in England both Mr. Jones and himself had become impressed with the view that the best fields to cultivate for the extension of Canadian trade lay within the empire. He felt that the question of preferential trade with Australia would carry the judgment of the Canadian people. He did not know whether Canada would derive the most advantage or Australia; neither country should enter into the agreement with the idea that they would get all the advantage. The thing must be mutual.

In answer to certain questions, Mr. Sheldon stated that there was no possible chance of the Australian method of valuation ever being altered. To do so would mean placing Canada on an altogether different footing to the United Kingdom and other parts of the Empire.

In considering the new tariff it must be remembered that Australia was becoming a manufacturing country. She had been isolated during the war and was determined that she would not be isolated again. The iron and steel industry would be a success and shipbuilding was already being carried on successfully. During the war plates were imported from the United States; they are now being made in Australia. The country possessed large deposits of salt and would be able to produce all the by-products of the alkaloid industry. Rubber was not produced in Australia but was grown in New Guinea and the Australian rubber industry was growing. In the matter of confectionery, Australia is now producing all its own requirements.

Manitoba Employers Form New Organization

Employers' Association Launched

At a meeting attended by some 220 employers, representing twenty-five different groups of trade and industry, an employers' association for Manitoba was organized in Winnipeg on March 30. Following the meeting, Mr. Chas. F. Roland, acting secretary, issued a report dealing with the proceedings and plans of the organization. This reads, in part, as follows:—

"Reports on membership, finance, collective bargaining and state insurance were presented, sanely discussed, and adopted. The report showed a founder membership that had enrolled voluntarily since January 20, 243 firms, which were employing, outside of executive officers, 13,817 hands, of which 10,386 were male employees and 3,431 female, and a total annual wage of $11,368,105. Nothing like a full canvass of the field had been made previous to organizing permanently, but steps will be taken immediately by the directors appointed last night to extend the organization until it has covered every town of importance in the province.

All Trades are on the Executive.

"Every trade group is represented in the fifty-one directors elected last night, and include representatives from the cities of Brandon, Portage and St. Boniface. The election of officers will be dealt with at a later meeting of directors.



Apostles of Western Development

Five Members of the Party of Westerners Who Have Been Addressing Gatherings of Manufacturers in Eastern Canada in the interests of the Alberta Industrial Congress and Western Canada Colonization Association. From left to right they are:—Major F. J. James, President Regina Board of Trade; Col. J. Y. Reid, Winnipeg Board of Trade; Mayor M. A. Brown, of Medicine Hat, President Alberta Industrial Development Association; A. E. MacKenzie, Brandon Board of Trade; and Brig-General H. F. McDonald, C.M.G., D.S.O., General Manager, Alberta Industrial Development Association

The draft constitution and by-laws which had been prepared by the provincial executive, which has had charge of the organization work during the past few months, were confirmed at the meeting.

"The chairman at this point outlined that since the provisional committee had been appointed in January, they had had representatives of Employers' Associations of Toronto, Minneapolis, British Columbia, and other points, visit Winnipeg, and had gathered by letter and telegraphic correspondence much information that had convinced the committee that existing conditions here called for immediate steps to be taken in the formation of the association.

"Briefly, the constitution, policy and principles are set forth as follows:—

"1. To promote a fair and equitable basis, industrial peace, and commercial prosperity, in the community, and the steady employment of labor.

"2. To discourage lockouts, strikes and unfair demands by either employer or employee.

"3. To secure for employer and employee, freedom of contract in the manner of employment.

"4. To disseminate a knowledge of the fundamental economic laws and conditions upon which a successful and desirable community life depends.

New Organization is Necessary.

"Recognizing that present financial conditions make it wise and imperative for business men to establish and maintain in Manitoba the most favorable conditions obtainable, in order to take advantage of the future opportunities this province offers for its agricultural, industrial and commercial development, employers assembled last night took a positive and absolute stand for the open shop principles in all lines of business, and, further, that as citizens with large sums of capital invested, they will urge upon Provincial and Dominion Governments in establishing and maintaining such principles, and will lend the association's moral and active support to maintain these principles in the future working out of the Provincial Industrial Conditions Act and other Canadian-wide uniform legislation, with a view of stimulating greater production and turnover in all lines of industrial trade and commerce.

"On this point, Mr. Roland emphasized what one of the leading speakers at last night's meeting said—that so long as production lags, the cost of living will not reduce, that increased production would solve many of the big economic problems of to-day; that while the cost of living was important, in proportion to other countries, Canada was lower in those increases, while, on the other hand, the increases in wages in almost all trades was among the highest of any country. It was pointed out that there was no reason for any worker in any line being idle to-day, and with these conditions existing there was no reason for delaying production, but every reason for increasing output to the limit. Small production meant big overhead; greater production meant lower overhead, and the outstanding problem in the high cost of living was the present high cost of production.

"Not only was it pointed out in the constitution, but it was emphasized in many of the speeches made, that employers were not organized to combat unionized labor, but, that as long as labor organized for the purpose of assisting their members by honest effort to improve conditions in general, the association would work with them in every possible way."

New Proposed Maritime Province Legislation

By H. R. THOMPSON

Secretary, Maritime Division, C.M.A.

The three Maritime Province Legislatures were still in session at the end of April. The Nova Scotia and New Brunswick Legislatures opened on March 4 and 12 respectively and the Prince Edward Island Legislature on April 6. Quite a number of bills affecting industry have already been introduced and others may be expected.

Workmen's Compensation.—A bill has been introduced in the Nova Scotia Legislature amending the Workmen's Compensation Act, providing for an increase in the amount of compensation from 55 to 66⅔ per cent., also increases in the pensions payable to the dependents in the case of a death. Representations will probably be made opposing the general increase from 55 to 66⅔ per cent.

Minimum Wage for Women.—An act has been passed at the present session of the Nova Scotia Legislature, providing for the appointment of a board of five members, to establish minimum wages and hours of work for women employed in factories and shops.

Development of Power.—A bill is now before the New Brunswick Legislature, which, if passed, will give the Government the right to take over and develop any water power site. There are a number of valuable sites from which power can be obtained, some of which it seems are being held for

speculative purposes, and it is anticipated that the passing of the proposed bill will assist toward the early development of some cheaper power in New Brunswick.

Factories Act.—A bill to amend and consolidate the New Brunswick Factories Act has been presented to the House. The chief new feature is that the Workmen's Compensation Board is given authority to make rules and regulations, governing the conditions in the factories, and to take action towards the enforcement of same.

Taxation of Unlicensed Insurance.—A bill entitled "An Act respecting the Taxation of Certain Companies and Associations" has been presented to the New Brunswick Legislature. If the bill passes as it now reads, certain clauses dealing with the taxation of insurance companies will prohibit the unlicensed insurance companies from doing business within the province. Opposition is now being worked up with the hope that certain amendments will be made.

Programme N.B. Federation of Labor.—The New Brunswick Federation of Labor presented a very comprehensive programme at the present session of the New Brunswick Legislature. The Association procured a copy a few days later, which afforded the employers the opportunity to prepare and present a brief dealing with the separate items, before any action was taken by the Government. As far as we can ascertain, it has not yet been decided just what features may be brought up in the form of bills for the House to consider.

Collective Bargaining in Manitoba

By G. E. CARPENTER

Secretary, Prairie Division, C.M.A.

While the representatives of workers and employers meeting in joint conference with a committee of members of the Manitoba Legislature at its recent session could not agree upon any definition of Collective Bargaining, members of the House made a recommendation to the Government resulting in the introduction by the Premier of an amendment to the Industrial Conditions Act. As this is the first legislation in any Canadian province which recognizes Collective Bargaining, it will be interesting to quote the amendment in full.

AN ACT TO AMEND "THE INDUSTRIAL CONDITIONS ACT."

His Majestty, by and with the advice and consent of the Legislative Assembly of Manitoba, enacts as follows:

1. "The Industrial Conditions Act," being chapter 43 of the Statutes of Manitoba, 9 George V, is hereby amended by adding thereto the following:

(*a*) The right of employers and employees to organize for any lawful purpose is hereby recognized;

(*b*) Employers and employees shall have the right to bargain with one another individually, or collectively, through their organizations or its representatives, provided that in case of any dispute between employers and any such organization of employees or its representatives as to the manner or the terms and conditions of such bargaining such disputes shall be submitted to the Joint Council of Industry, and dealt with by it in the manner prescribed by this Act.

2. The Joint Council of Industry shall proceed to investigate forthwith after such dispute has arisen and not more than five days thereafter. And such investigation shall be carried on with all reasonable despatch, with no postponement or adjournments except such as are absolutely necessary to render the enquiry complete, or are otherwise unavoidable, and the report of the said Joint Council of Industry shall be made within ten days of the completion of such investigation.

3. Section 11 of the said Act is hereby amended by adding after the word "such" in the third line thereof, "or that any agreement or arrangement between employers and employees injuriously affects the public."

4. Schedule "A" of the said Act is hereby repealed.

5. This Act shall come into force on the day it is assented to.

Labor has continually refused to nominate representatives for appointment by the Government on the Industrial Tribunal under the original Industrial Conditions Act, although the Winnipeg branch complied with the Government's request for nominations immediately such request was received after passage of the last Session of the Legislature. When the above amendment was introduced the Committee appeared before the Law Amendments Committee and urged that labor should nominate its representatives and try out the original Act for a year, when it would be ascertained whether or not any amendments were required. In other words they urged that any amendment dealing with such a controversial subject as Collective Bargaining should be based upon experience rather than an attempt being made to deal with the matter without knowledge. Employers' representatives also objected strongly to that part of the amendment dealing with the manner in which Collective Bargaining should be practised, contending that more disputes would arise in connection therewith then as to the differences between the workmen and their employers. They pointed out that had they been tied down to any procedure in the past many differences which had been adjusted satisfactorily to both parties would have been impossible of achievement.

Labor's representative stated that while the amendment was not satisfactory to labor in that it did not go far enough in its definition of Collective Bargaining, and further, that the Government did not intend to pass an Anti-Injunction Law, labor was prepared to accept the amendment, nominate representatives for appointment on the Industrial Tribunal and try the Act out with a view to arriving at some way of adjusting industrial disputes. Notwithstanding the objections of both sides the amendment was passed as introduced.

Accident Prevention in Nova Scotia

By H. R. THOMPSON

Secretary, Maritime Division, C.M.A.

The Maritime Division has been successful in promoting an Accident Prevention Association in Nova Scotia, under the provisions of Section 80 of the Workmen's Compensation Act, the constitution of which is considered very favorable from the employers' standpoint, and has been approved by the Compensation Board. The chief features of the constitution are:—

1. *Objects and Powers.*—The principal sections of which read as follows:—

(*a*) To promote and carry on the work of the prevention of accidents and of industrial diseases in all industries now within, or which hereafter may be, brought within the scope or operation of Part 1 of the Workmen's Compensation Act of Nova Scotia.

(*b*) To make rules for the prevention of such accidents and diseases in such industries.

(*c*) To apply for and obtain approval by the Workmen's Compensation Board of such rules and of the constitution of the Association, with object of having such rules made binding upon and enforceable against the employers in the said industries, whether or not such employers are members of this Association.

(*d*) To represent employers within the scope or operation of the Workmen's Compensation Act in connection with the administration of said act.

(*g*) To employ inspectors, engineers, experts, accountants, secretaries, and other officers and persons.

(*h*) Generally to do all matters and things that may be authorized at any general or special meeting of the association.

2. The Compensation Board has been furnishing the necessary funds to carry on the work. No membership fee has been provided. Every employer, assessed under the Act, is considered a member and receives a notice of all general meetings and has a voice in the proceedings. It is strictly an "Open Shop."

3. Provision has been made in the constitution for the formation of "Sections" to deal with matters peculiar to particular classes or groups of industries.

4. It is generally recognized that the association is a purely employers' organization, and in order to illustrate this fact, the secretary of the Maritime Division, C.M.A., is acting as the secretary for the Accident Prevention Association.

5. Thus far full co-operation has been received from the Workmen's Compensation Board and the portion of its records which are of assistance in the work of the association are made available for its use. The office of the association is located in the same building as the Compensation Board and on the next floor above. The work, of necessity, keeps the association in constant touch with the board and the location of the office facilitates matters.

Safety Work

Sections have been organized for the metal trades and the lumbering and woodworking industries. A code of "Rules and Regulations" for the metal trades was considered and adopted at a late meeting of the section. This code has since been approved by the Workmen's Compensation Board and is now enforceable on all the industries in the metal trades. A meeting of the employers engaged in the lumbering and woodworking industries is to be held on May 12th in an endeavor to devise ways and means of reducing the hazard in these industries. It is anticipated that meetings will be held in the near future in an endeavor to organize "sections" for the other classes under the Act.

A "field organizer" has been engaged to devote his whole time to visiting all sections of the Province, to explain the organization and work of the association to the individual employers, and in an endeavor to impress them with the necessity for actively co-operating towards the prevention of accidents. Success in accident prevention work depends entirely upon the interest displayed by the individual employer. If he is not a real convert as to what can be accomplished, a whole army of inspectors and safety engineers cannot attain satisfactory results. In Nova Scotia we are first going to aim our campaign at the individual plant managers. When we get his support we are confident that something tangible can be done.

Annual Meeting at Halifax

The annual meeting of the Nova Scotia Accident Prevention Association took place in Halifax on March 25. The president, Mr. C. D. Dennis, of Rhodes, Curry, Limited, Amherst, was in the chair, and all the large industries of the province had representatives present. In his address Mr. Dennis reviewed the work of the organization since its inception in April, 1919, and outlined some of the difficulties that had been encountered. Addresses were then delivered by Messrs. F. E. Lucas, Dominion Steel Corporation, chairman of the Metal Trades Section; F. W. Armstrong, vice-chairman of the Workmen's Compensation Board, and John McKeigan, chief auditor of that body. Several members present took advantage of the opportunity to ask questions regarding various phases of the application of the Compensation Act.

The election of the officers and general executive committee resulted as follows:

President—G. D. Macdougall, N. S. Steel & Coal Co.

Executive Committee

Class 1—Mining, A. J. Tonge, Dominion Coal Co., Limited.
Class 3—Lumbering, Woodworking, R. E. Dickie.
Class 5—Metal Trades, R. B. Stewart, Maritime Bridge Co., Limited.
Class 6—Miscellaneous, C. V. Monaghan, Moirs Limited.
Class 7—Building Construction, A. S. Curry, Rhodes Curry, Limited.
Class 8—Public Utilities, J. H. Windfield, Mar. Tel. & Tel. Co., Limited.
Class 9—Transportation and Navigation, G. W. C. Hensley, Pickford & Black, Limited

Ontario Division and Toronto Branch Annuals

Held in Toronto, April 29th

Both the Ontario Division and the Toronto Branch held their annual meetings on Thursday, April 29, at the King Edward Hotel, Toronto. A good attendance of members was present in both cases. Reports from the various standing committees were presented.

Mr. J. R. Shaw, Canada Furniture Manufacturers, Limited, Woodstock, was elected chairman of the Ontario Division, with Mr. W. C. Coulter, Booth-Coulter Copper & Brass Co., Limited, vice-chairman. The following were elected to the Executive Committee: H. Barrett, Paris; W. R. Breyfogle, Peterboro; G. C. Cockshutt, Brantford; W. Cowan, Galt; G. H. Douglas, Hamilton; R. H. Easson, Toronto; H. W. Fleury, Aurora; E. H. Gurney, Toronto; Fred Hatch, Whitby; T. A. Hollinrake, Toronto; J. G. Hossack, Toronto; Wm. Inglis, Toronto; J. G. Kent, Toronto; G. M. McGregor, Ford; Thos. Roden, Toronto; H. J. Waddie, Hamilton; C. R. H. Warnock, Galt; S. J. Williams, Kitchener; A. W. White, London; F. H. Whitton, Hamilton.

The new chairman of the Toronto Branch is Mr. T. A. Hollinrake, A. R. Williams Machinery Co., Limited, and the vice-chairman, R. H. Easson, Otto Higel Co., Limited. Following are the members of the Executive Council: C. H. Carlisle, Goodyear Tire and Rubber Co. of Canada, Ltd.; F. S. Corrigan, Sheet Metal Products Co. of Canada, Ltd.; E. J. Freyseng, Freyseng Cork Co., Ltd.; W. R. Gibson, Gurney Foundry Co., Ltd.; A. H. Gourlay, Gourlay, Winter & Leeming, Ltd.; A. E. King, Dunlop Tire & Rubber Goods Co., Ltd.; Walter Laidlaw, R. Laidlaw Lumber Co., Ltd.; R. L. McIntyre, McGregor & McIntyre, Ltd.; T. F. Monypenny, Imperial Varnish and Color Co., Ltd.; Chas. Morrison, the Jas. Morrison Brass Mfg. Co., Ltd.; J. Allan Ross, The Wm. Wrigley Jr. Co., Ltd.; J. A. Scythes, Scythes & Co., Ltd.; W. H. Shapley, Sterling Action and Keys, Ltd.; H. D. Scully, Willys-Overland, Ltd.; E. G. Staunton, Stauntons, Ltd.; J. F. M. Stewart, Point Anne Quarries, Ltd.; H. A. Telfer, Telfer Bros., Ltd.; Geo. Valentine, Massey-Harris Co., Ltd.; Geo. W. Watts, Canadian General Electric Co., Ltd.

A full report of the two meetings will be published in the June issue of INDUSTRIAL CANADA.

At the annual meeting of the Maritime Division, C.M.A., held in Moncton, N.B., on April 28, Mr. R. H. MacKay, of MacKay & Fraser, New Glasgow, was elected chairman for 1920-21. An account of this meeting will appear in the June issue.

The annual meeting of the Prairie Division is scheduled to take place in Winnipeg on May 20.



Scene at the Narrows, near the Entrance to Vancouver Harbor.

Our 1920 Convention City from the Scenic and Tourist Standpoint

By J. REGINALD DAVISON
Industrial Commissioner, Vancouver

IN VANCOUVER we realize that tourist travel and tourist entertaining is a great big industry, with all sorts of money in it. Capital, office space, working staff, advertising and all other instruments for business-getting have to be used, exactly as is the case with all other industries, but with this difference: Vancouver's stock-in-trade is always being sold, yet it is never depleted. Care has to be taken of it, of course, in the building and repairing of roads, maintaining of parks and mountain ways, and attending constantly to the details of scenery-keeping, just as the trained housewife gives daily care to her home in order that her family may the more enjoy it and that it may be of pleasure to her guests.

Vancouver has some big things for sale in a scenic way. People who came first to Vancouver took them for granted; gazed upon them in wonder, and wrote to their friends about them, but did not dream that they were a money-making asset of Vancouver and for Vancouver and that all other people who wanted to see them must come to Vancouver to look.

Pauline Johnson, the Iroquois Princess of Ontario's Brant County, was among those who heard and wished to see. When she saw she longed to stay, and her last earthly resting place is here.

Not only did she see the great things that are Vancouver's, but being of Indian blood, she found friends here other than the white folk. One Chief Capilano, whom she had met at Buckingham Palace, in Queen Victoria's days, told her of the whys and wherefores of the wonderful physical features—stories that had been handed down from generation to generation in Indian tradition, and these legends Pauline Johnson gathered into written words and spread abroad for all to read.

Overlooking Vancouver City from the north are twin mountain peaks known locally as "The Lions." The legend of their being is so well known and so truly believed on the Pacific Coast that Vancouver is called "The Lion Guarded City."

There is a forest playground of one thousand acres within three-quarters of a mile of the big retail shops of Vancouver, and of it are many tales told, one of them with the mysticism of a weird lure attached. On the west shore of this Stanley Park is the famed Siwash Rock, the form of an Indian brave blessed by the good luck of a growing tree springing out of the bare rock. So great was Pauline Johnson's love for Siwash Rock that she asked permission of the Canadian Government "to be buried as near to it as the sea waters would permit," and within a stone's throw of it her ashes now mingle with the dust.

Through Stanley Park are many wonders: To the south, on the eastern side, are great salt water bathing beaches, three of them around the sides of English Bay, where people from the many Pacific Islands, from South America, and from other lands bordering upon the Pacific Ocean, play during the greater part of the long summer days.

There are many miles of paved roadways, one, locally known as the Marine Drive, that skirts the sea, passes through the farms and gardens along the fresh-water Fraser delta, crosses Burrard Inlet (a vast land-locked harbor of which only one is said to be bigger) and climbs the mountains to Capilano Canyon, the Lynn Valley Retreat, the beauteous crevices of Seymour Creek and comes down to the long curves by the sea again.

These wonders are sold to tourists, for they are written and talked about, and tourists spend money to come and see and enjoy. From the States, to the south of British Columbia, people come by the thousands each week the whole year through, for Vancouver roads are always open, their fringes are ever green, the natural beauties are as great during the winter months as through the summer (springtime is a paradise) and the attractions never wane, for they differ with each month of the year.

There is a five hundred mile loop of perfect roadway from Olympia, State of Washington, up through Vancouver, across the Gulf of Georgia to Vancouver Island, south to Victoria, the capital of British Columbia, and across the Straits of Juan de Fuca to Washington State again. This loop is the Georgian Circuit Highway, and the naming of it is a story.

"In 1792 Captain Vancouver named the entire country through which this circuit passes 'New Georgia,' in honor of the then reigning King of England. With the division of the land between Great Britain and the United States the northern British part was re-named 'British Columbia,' and the southern, United States, part was called 'Washington,' so that the original name was retained only by the body of water directly west of the northern part, known as the Gulf of Georgia. During February, 1915, when the Georgian Circuit was opened, the One Hundred Years' Peace was being celebrated by the people of Canada and the people of the United States. Both Washington, the first President of the United States, and the present King of England were named 'George,' so, crossing the span of America's Beginning to the To-day of Great Britain, was the same Christian name, and it was a happy thought that united the 'Georges' in the naming of this wonderful highway, already recognized among the finest of the famous tours of the Pacific Coast."

A Peace portal is to be erected on the boundary line of Canada and the United States (British Columbia and the State of Washington) during the fall of 1920 to further commemorate the One Hundred Years' Peace—the first Peace Memorial to be erected in the world, so it is said.



Siwash Rock

Famed in Indian Legend marking the burial place of an Iroquois Princess.

All these fine roads; all the tradition and history; all the scenery and fishing, hunting, ball sports and seagoing; the island camping, the mountain climbing; the wonderful climate, the unlimited drinking water—so pure that neither filtering nor boiling is ever needed; the wild flowers, and those ferns that are fresh and green all the year 'round; the big trees that tower 300 feet and more skyward, nad the little trees that bloom and shelter and are covered with fruits and filled with nesting birds; the rocks that may show precious metals when they are tapped by the prospector's pick, and the earth that may yield coal or oil; heavy clay for pottery or fine silt for peach growing when a spade is sunk into it; the sunsets that make for silence with their loveliness; the salt and fresh waters that teem with fish and fern; the roads that lead upwards and over the mountains into the far north countries, eastward to the fertile fruit valleys of the Fraser, the Nicola, the Okanagan, and the Kootenays—where gold is embedded in the rocks and cascades of power fall over them, and south, into the Republic below us—all these are desirable wares for sale. Hundreds of thousands come to buy and carry the pleasure of seeing them away. They come again to renew their pleasure, and many remain to make their homes. The money they bring and leave in Vancouver during one year is more than the money made by most other single industries in the city.

Australia and New Zealand, France and other European countries—before 1914—long recognized the advantages of the tourist trade, and special departments of their governments were set aside to look after it.

Such a department pays. It should be a department of every government, for the government has authority to attend to matters that are outside the jurisdiction of any particular city publicity bureau. For instance, speaking locally, a part of the highway between Vancouver and New Westminster may be out of repair. Autoists from California motoring into Vancouver may say, "A bit of work needed on the road a little way out; nearly had an accident." What can Vancouver or New Westminster do? Both are powerless. Tell the same story to the Government. Before the autoist goes back the road is ready for him and for all others who may travel over it. Multiply this one instance by thousands, and before you is the reason for Departments of Tourist Industry in the governments of the Provinces of Canada.

In a measure, the Government of British Columbia does take a hand in the tourist business. It is this way: The Province of British Columbia and the States of Washington and Oregon, on the Pacific Coast, have formed a club known as the Pacific North-West Tourist Association. Each government pays a sum into the treasury of the association and the moneys are pooled for the promotion of tourist traffic and trade on the Pacific Coast. The three immense tracts of country rub shoulder to shoulder.



The Famous "Lions"

Twin mountain peaks overlooking Vancouver



On the Marine Drive

Showing Mt. Garibaldi in the background

Entertainment Arrangements for Convention

The Programme Outlined

By HUGH DALTON

Secretary, British Columbia Division

SUBJECT to final adjustments which may be made during the interval between now and the annual meeting, the following is the programme of entertainment that has been laid out for the Convention week in Vancouver and Victoria:

Monday, June 7th—Delegates to the Convention will be the guests of the Vancouver Board of Trade at a luncheon in the ball room of the Hotel Vancouver. Premier Oliver will deliver the principal address at this luncheon. The first session of the Convention, which convenes immediately after the luncheon, will then be opened by the Mayor of Vancouver.

Illustrated Lecture on Japan.

It is expected that Monday evening will be occupied by a semi-official session of the Convention, at which an illustrated lecture on Japan will be given by the Canadian Trade Commissioner at Yokohama, and possibly other similar business.

Tuesday, June 8th—The Rotary Club of this city will act as hosts to those attending our Convention at a luncheon at the Hotel Vancouver. In the evening a boat trip to points of interest in this district is being arranged.

Wednesday, June 9th—The Kiwanis Club will be hosts to visiting members of our Association at a luncheon at the Hotel Vancouver. As it is assumed that the business sessions will terminate with the one on June 9th, morning, a motor drive around Burrard Peninsula, via Barnet, Port Moody, Coquitlam, Fraser Mills and New Westminster, is being arranged, to include inspection of industries at the different points named, and an official reception at New Westminster. Wednesday evening has been set for the annual dinner at the Hotel Vancouver.

Thursday, June 10th—The party will leave here for Victoria in the morning and on arrival there will motor to Mr. Butchart's gardens at Tod Inlet, where tea will be served, and on Thursday evening a special performance will be given at the Royal Victoria Theatre in honor of the visiting manufacturers.

Friday, June 11th—In the morning the party will be taken to Esquimalt for inspection of Yarrow's shipbuilding and dry dock plant, and, if time permits, a visit will also be made to Gordon Head, the famous strawberry producing section of this Province. The programme will conclude with a luncheon on the 11th in the ball room of the Empress Hotel, tendered by the Victoria Rotary Club to visiting manufacturers and their ladies, and on Friday afternoon the party will leave for Vancouver and the East.

In regard to the entertainment of the visiting ladies, it has been arranged that the Vancouver Women's Canadian Club will be the hostesses at a luncheon in honor of these ladies on Monday, June 7th, at "The Lodge." Monday afternoon has been left open, as the local Ladies' Committee in charge of arrangements felt that visiting ladies would no doubt wish to do some shopping, and probably rest up after their trip across the continent. As visiting ladies will probably be in attendance at Monday evening's informal session of the Convention, no programme has been fixed for that evening, although this may possibly be changed.

Entertainment for the Ladies.

On Tuesday afternoon, June 8th, it is proposed to take the visiting ladies for a motor drive to Capilano Canyon; tea to be served at the hotel at the Canyon. Tuesday evening the ladies will, of course, be accompanying the balance of the party on the steamer trip referred to above.

On Wednesday afternoon, June 9th, it is proposed to take the visiting ladies for a steamer trip to Wigwam Inn, and on the return journey to stop off for tea or dinner at the residence of Mrs. J. J. Banfield, on the North Arm of Burrard Inlet, returning to the city about 8 or 9 o'clock.

At Victoria the ladies will, of course, participate in the various arrangements outlined above for June 10th and 11th.

Protest Workmen's Compensation Changes

Delegation Representing C.M.A. and Other Organizations Present Brief to Ontario Government Pointing Out Objection to Certain Proposed Amendments to the Workmen's Compensation Act—Increases will Encourage Malingering

ON April 27 a deputation representing the Canadian Manufacturers Association, the Ontario Miners' Association, the Canada Furniture Manufacturers' Association, the Canadian Stove Manufacturers' Association, and the Canadian Lumbermen's Association, waited on Premier E. C. Drury and members of the Ontario Government, and presented a brief, outlining the position of these bodies with respect to proposed amendments to the Ontario Workmen's Compensation Act.

Mr. J. E. Walsh, general manager of the Association, headed the deputation, and presented the memorial, after which several members supplemented the written statement with verbal comments. Mr. Walsh pointed out that the C.M.A. represented 2,100 industries in Ontario, employing about 400,000 workers, with a total invested capital of over a billion dollars. The brief read as follows:—



Vancouverites Enjoying life at English Bay

General Outline.

1. The Ontario Workmen's Compensation Act provides compensation, in case of injury by accident, for all the workmen of every industry within its scope. If the accident occurs during employment the compensation is automatically payable, except where it is caused by the serious and wilful misconduct of the workman, and even then it is payable, if the accident results in death or serious disablement. The money to pay this compensation is raised by a yearly tax on the industries concerned. Nothing is contributed by the Province or from any other source. The industries named in the Act have no choice as to whether they will come under the Act, nor have they any appeal from the decisions of the Board which administers the Act. The selection of industries to be governed by the Act has been based on the degree of hazard involved, but, while most of the hazardous employments have been included, there are a number of striking exceptions, the chief one, of course, being the farming industry. This omission was specially remarked on by the framer of the Act, Chief Justice Sir William Meredith, in his final report, his explanation being simply that he doubted whether public opinion was ready for it. It may be remarked, however, that in these days of an increasing drift from the country into the town—a drift which is obviously intensified by every improvement of the lot of the urban as compared with the country worker—public opinion may have undergone some change.

Scale of Compensation—A Comparison

2. Under the present Ontario Act, the scale of compensation is 55% of earnings, payable during the entire period of disability (in some cases, therefore, for life), or, in case of death, until the death or remarriage of the widow. A comparison of this scale with that provided by other Canadian and American Compensation Acts shows that, with the

exception of Manitoba (which is not a manufacturing province), Ontario has been more liberal than any other province or state.

Proposed Amendments

3. This, then, is the Act which it is now proposed to amend by increasing the scale from 55% to 75%. Such a change would create the following situation:

(1) 55% scale raised to 75%.

	Highest American Act (California).	Present Ontario Act	Proposed Amendment
Scale.....	65% for 240 weeks. Then drop to 40%.	55% for life.	75% for life
Weekly maximum	$20.83	$21.15	$28.84
Medical aid.....	Limited in all but 5 States.	Unlimited.	Unlimited.

(2) Minimum Weekly Compensation, $12.50.

In addition to the increase from 55% to 75%, a minimum weekly payment of $12.50 is proposed. This means, among other things, that all workers whose wages are less than that amount, will receive full wages while absent from work.

(3) Widows' Compensation raised to $40.00.

The scale of compensation to widows and children is proposed to be increased, from $30.00 and $7.50 to $40.00 and $10.00. Also the maximum of $60.00 is struck out, and, instead, a maximum of 75% of the husband's wages is fixed. The employers represented by the Canadian Manufacturers Association do not object to any reasonable increase being made in the scale of compensation to widows and children.

Increases Made Retroactive

(4) A further and very considerable addition to the burden on those who are to pay the compensation is constituted by the proposed retroactive feature. If this principle is adopted, the industries now in operation will be obliged to provide not merely for their own pensioners, but for the trail of pensioners left behind by the munition works and other concerns which have done business from time to time since the 1st of January, 1915, but have now been wound up or have left the country. And this, it is to be noted, is on top of the proposed increases in the rate of tax on manufacturers of 36.3%, due to the rise in the scale of compensation from 55% to 75%.

Proposed Amendments Wrong in Principle

(5) But the serious increase in cost is not the only objection to these amendments. There is also the danger of increasing the tendency to malinger. An analysis of the working of the present Ontario Act shows that even with a 55% scale there is a tendency toward malingering, and it is obvious that an increase from 55% to 75% will inevitably intensify this tendency. This is particularly important when we remember that the overwhelming majority of cases dealt with are short period disability cases, and therefore it is in these cases that the bulk of the money is paid. The figures for 18,468 in 1918 were:—

37% terminate in 2 weeks or less;
74% " 4 " "
91% " 7 " "

(Table 21, page 40, W. C. Board's Report).

The figures for 1919 are:—

47% terminate in 2 weeks or less;
68% " 3 " "
90% " 6 " "

These are the cases where there is the greatest danger of malingering and they constitute 90% of all the cases dealt with. A further analysis of the short period disability class shows that a large percentage are unmarried persons, in whose case there is no question but that the proposed increase would operate as a direct inducement to malinger. Boys and girls earning less than $12.50 per week get full wages, whether they work or not. The single man receiving 75% of his earnings will, in most cases, be quite comfortable, and even the married man, provided his wages were fairly high, will not feel any great keenness to return to work. It should not be forgotten that this Act is one for the compensation of workmen, i.e., of men who work. It is not an Old Age Pensions Act, neither is it an Unemployment Insurance Act. At least, that was not the intention of the man who framed it or of the legislature that passed it. The proposed changes, it is submitted, are conceived, to a large extent, in the spirit of old age and unemployment insurance measures. However desirable these features may be, it is submitted they should be furnished at the expense of the State in the first instance, and should not lightly be incorporated in a measure of industrial insurance which is for the compensation of workmen injured through accident during their employment.

The Proper Principle—Adequate Maintenance

(6) The ideal scale of compensation, it is admitted, is one high enough to provide adequate medical attendance and adequate maintenance during disability, but not so high as to induce malingering. The question of maintenance, of course, raises the question of the increased cost of living. If, however, this is the ground for the present demand, the answer is that the rise in wages has at least kept pace with the general rise in prices, and we are, as it has been recently expressed, running around the uneconomic circle like a squirrel in its cage. Thus the Board's Report for 1919 shows that there has been a marked increase in the average weekly wage from $13.27 in 1915 to $24.80 in 1919. If the principle to be applied is that of adequate maintenance, it is unsound to fix a scale so high that the highly-paid worker—and who is not highly paid at present?—is receiving much more than is required for such maintenance. It must not be forgotten that the cost of maintenance is no greater for the highly-paid man than for his less fortunate comrade. Why, then, should any distinction be made? To make a distinction is, it is submitted, to abandon the principle of maintenance during disability, and to create the "Profiteer Pensioner," i.e., the malingerer.

No Reason Shown for Change in Present Act

(7) A final point is that a survey of 250 cases (out of the 2,516 disability cases at present receiving pensions), has shown that, to quote the Board's report for 1919.

"The pensions awarded by the Board have equalled 55% of the difference between the average weekly earnings before the accident and the average amount earned after the accident. That is, pensions awarded have, on the whole, made up the wage loss resulting from injury, and there is an opportunity for every disabled worker (provided he is willing to seize it) to earn wages which, with his pension, will bring his earnings to a parity with what he was earning at the time of the injury."

There is every reason for believing that, if this survey were extended to include the entire 2,516 cases, it would be found that the present Act was fulfilling satisfactorily the purpose for which it was enacted, and it is submitted that the survey ought to be so extended, and a conclusion reached, one way or the other, before such far-reaching changes in the present Act are even considered—much less made.

All of which is respectfully submitted.

Statement of the Number of Cases in which Pensions are now (April 26, 1920) Being Paid Under the Workmen's Compensation Act.

Death Pensions (to widows, widows and children, children only, and parents).

	Schedule 1 Industries.	Schedule 2 Industries.
Cases under old scale	507	228
Cases under 1919 scale	100	96
Total Death Pension Cases	607	324

Workmen's Pensions (no change in scale).

Permanent Total Disability	45	15
Permanent Partial Disability	1,268	241
Total Workmen's Pensions ..	1,313	256

There are also 33 Crown cases (Provincial and Dominion) in which pensions are being paid, making the total number of pension cases of all kinds at present standing 2,533.

It is impossible without going through the cases in detail to make anything like an accurate estimate of the amount

required to take care of the increase in compensation provided for in the draft amendments, but a very rough approximation would be as follows:—

	Schedule 1.	Schedule 2.
Death Pensions	$1,100,000	$650,000
Workmen's Pensions	1,000,000	300,000

Subsequent to the visit of the deputation to the Government, the following additional information has been supplied to the Premier, Attorney-General and Minister of Labor:—

"With regard to the question of the additional cost involved in making the increase retroactive, we are informed that it would be something over $3,000,000.

"Another question asked on Tuesday was as to the number of pensioners left behind by industries that have done business from time to time since January, 1915, but have now been wound up. Our information is that the figure of 27 mentioned on Tuesday last is the figure for munitions works only. In addition to these, there are the other industries of various kinds that have ceased operations, and also the many cases of individual employers who have withdrawn from business. The exact figures could no doubt be secured from the Board.

"Without going over again the ground covered on Tuesday, I should like to urge that the concluding paragraph of the memorandum submitted should, as I feel it will, be given your serious consideration. While the Government has, in a sense, heard both sides of the question, neither the workers nor the manufacturers can be said to be entirely disinterested. But there is available a body of evidence which is not a matter of opinion or inference by one side or the other, but simply a matter of fact; namely, the history of the 2,516 cases now on the Board's pension list. Unless and until the survey of these cases is completed, the most valuable, and, indeed, the conclusive evidence has, I submit, not been heard."

Visit Campbellford

Box Manufacturers from Toronto and other points Inspect Board Mills

A party of Toronto and Ontario manufacturers interested in the production of paper boxes and cartons paid a visit on April 20 to the mills of the Northumberland Paper & Electric Co., Limited, at Campbellford, Ont., where they were shown the different processes of manufacturing pulp and board, under the guidance of David F. Robertson, general manager of the company. Those who took the trip were:—

From Toronto: Mr. Bennett, Rudd Paper Box, Limited; Mr. Fielder, The Fielder Paper Box Co.; Mr. Fisher, F. W. Fisher & Co.; Mr. Harvey, Lawrason-Doughty Co.; Mr. Lawrence, Dominion Envelope & Carton Co., Ltd.; Mr. Smith, A. D. Shoup Co., Ltd.; Messrs. McKay and Owen, York Paper Box Co., Limited; Messrs. Adams and Gutland, Adams Manufacturing Co., Limited; Mr. Prescott, A. E. Long & Co.; Messrs. Collett and Sproule, Collett-Sproule, Limited; Mr. Morrison, Automatic Paper Box Co., Limited; Mr. Young, Regal Paper Box Co., Limited; Mr. S. J. Frame, Secretary-Treasurer Canadian Paper Box Manufacturers' Association.

From Hamilton: Mr. C. T. Reid, Chas. Reid & Company; Mr. Tresidder, Tresidder Bros.; Mr. Morley Eager, Hamilton Paper Box Company; Mr. Slater, Paper Boxes of Canada, Limited.

From Guelph: Mr. Small, Guelph Paper Box Company.

From Kitchener: Mr. Boehmer, A. & C. Boehmer, Limited.

From Stratford: Mr. Whitesides, Stratford Paper Box Company.

From Galt: Messrs. Turnbull and Hancock, Galt Paper Box Company.

From Brantford: Mr. Hampel, Hampel Paper Box Company.

From Montreal: Mr. Art. Harries, Canada Paper Box Company, Limited.

Victoria Branch's Annual

Mr. N. A. Yarrow Elected Chairman, and Mr. R. W. Mayhew, Vice-Chairman

The annual meeting of the Victoria, B.C., Branch, C.M.A., was held in the Winch Building, Victoria, on April 13. The secretary, T. J. Goodlake, reported an excellent increase in the number of members during the year. Ways and means of entertaining the members attending the annual convention of the Association in June were discussed and a committee consisting of Messrs. R. W. Mayhew, E. A. Harris, J. D. Pendray, E. Tomlin and T. J. Goodlake was appointed to make arrangements. The following officers were elected:—

Mr. N. A. Yarrow, chairman, to replace Mr. Edwin Tomlin; Mr. R. W. Mayhew, vice-chairman, to replace Mr. G. A. Kirk; Messrs. M. W. Graham, J. L. Tait and E. Tomlin, executive committee; Messrs. N. A. Yarrow, J. L. Tait and T. Tomlin, representatives on the provincial executive.

Co-Ordination of Labor Laws

Representatives of Employers on the Commission for Labor Law Co-Ordination

On April 26 a conference was opened at Ottawa for the purpose of seeing whether the labor laws of the various provinces could not be co-ordinated and unified. The conference is composed of a representative of each of the Canadian Governments—Dominion and Provincial; representatives of employers and representatives of labor. The Dominion representatives are F. A. Acland, Deputy Minister of Labor, for the Government; J. G. Merrick, Secretary Employers' Association of Toronto, for employers, and Tom Moore, President Trades and Labor Council, for the employees.

The provincial representatives of the employers are:—Nova Scotia, Fulton J. Logan, Musquodoboit Harbor; New Brunswick, Angus McLean, Bathurst; Quebec, John Lowe, Valleyfield; Ontario, Sam Harris, Toronto; Manitoba, H. B. Lyall, Winnipeg; Saskatchewan, James Priel, Saskatoon; Alberta, Walter F. McNeill, Calgary; British Columbia, John J. Coughlan, Vancouver.

Buy Welland Plant

Ontario Smelters and Refiners Will Operate Plant of Metals Chemical, Limited

The Ontario Smelters & Refiners, Limited, importers and manufacturers of mineral colors and materials, including oxides and chemicals for potters, glass-makers and enamelers, Chippawa, Ont., have purchased the plant of the Metals Chemical, Limited, Welland, and will use it for the recovery of cobalt oxide, nickel, arsenic, silver, copper and antimony from cobalt ores. The plant is quite complete, and the only changes that will be made will be in the nature of alterations, except for the addition of tanks. When changes are complete, it will have a capacity of 400,000 lbs. of cobalt oxide, 250,000 lbs. nickel, and 600 tons of arsenic. The company will employ 125 men, besides their office and technical staff, when operating at full capacity. The plant at Chippawa will be used for the manufacture of the chemicals required in the smelting process.

Excessive Labor Turnover and Its Remedies

Immense Sums of Money Are Lost Through the Unceasing Shifting of Factory Workers from Place to Place—Few Canadian Plants Have Adequate Methods to Cope with Problem — What May Be Done to Lessen the Evil

By G. W. AUSTEN

IN at least the larger cities of Canada and the United States, manufacturers will tell you that one of their biggest problems now is labor turnover. The unceasing shifting of factory workers from place to place, the constant hiring and firing, the loss and disorganization of output, are costing many individual Canadian companies hundreds of thousands of dollars per year. For the whole Dominion the cost must be very many millions.

Knowing some of the difficulties employment managers and broad-gauged executives in Canadian factories have been meeting in regard to labor turnover, the writer queried a score or more of the larger Canadian firms. The facts revealed show interesting contrasts. In the year ending September 30, 1919, a large agricultural implement industry in Hamilton had a turnover of 100.7 per cent., on an average of 2,111 men on its roll for that period. A rubber manufacturing company in Toronto had a turnover for 1919 of 224 per cent. on an average payroll of 1,494. A Brantford engine company has had a turnover of 90 per cent. Some large Toronto companies have had turnovers of 70 per cent., 134 per cent., and 180 per cent. respectively. Contrasting with these, a Galt metal manufactory has a turnover of only 15 per cent. A Dundas tool company had a turnover of 25 per cent. in 1919, about 20 per cent. of this being unskilled men. A Hamilton steel company employing about 60 hands reports a turnover of about 5 per cent. a month. A Galt machinery firm had a turnover of less than 7 per cent., of which 5 per cent. was unskilled. The Pedlar People of Oshawa had to have 690 men on their payroll at various times in 1919 to maintain an average staff of about 265 employees.

Few Companies Keep Records

Only a few of the larger companies have personnel statistics covering the coming and going of employees and showing details of their personal conditions, or use modern methods of handling this vexing question of labor turnover. Some of the larger companies have no statistics at all on the subject. They do not know what shifting takes place in their labor, why the men leave, what it costs them in time, waste and breakage to replace men who leave. The Ford Company reduced its labor turnover of 416 per cent., which had been costing it $2,000,000 a year, to about 80 per cent. by a special attack on the evil. Each of these large manufactories is suffering heavy loss, much of it preventable, by inattention to this problem, but until competition becomes closer, can charge it up to general cost, and add it on to the selling price.

The usual method of figuring labor turnover is to find out how many employees have been hired in a week or month, to replace those who have left, through avoidable causes. That is, if any employee dies, or a female employee is married, and leaves, the item is not recorded among the leavings for turnover record purposes. A sample calculation would be this: Hired in week ending —— 29, transferred to other departments 10, left 34, discharged 5, laid off 7, died 1, number on payroll end of previous week 2,701, number on payroll end of week, of record 2,685. The number of employees leaving is, therefore, 46, and the number hired 29, replaces only 29. The average payroll is 2,694, which, on a yearly basis gives a percentage of 56 for turnover. This does not, it should be noted, include in the reduction of the staff any allowance for turnover. If employees are released, and not replaced, there is no turnover. If more employees are hired than leave, the excess is not turnover. Turnover is, therefore, replacements that should be avoided.

Reasons for Large Turnover

The facts of the existence of an enormous turnover are generally admitted. Every factory executive needs to be interested in the reasons and remedies. Some of the causes are out of control of the management—housing difficulties, for instance, or family reasons for moving. The Russell Sage Foundation ascertained that of 22,000 men in 78 United States cities, only 16 per cent. were living in the place in which they were born. Modern industrial methods compel workers to move, at times, to get desired change. But insofar as the factory is concerned, the causes of labor turnover may be summarized thus:

1. Poor methods of employment and discharge. Men are hired en masse and fired summarily if they do not make good at the job on which they are put. Foremen often have too much individual authority over personnel under them.
2. Poor methods of promotion. Workmen who are ambitious find they have to move to better their position.
3. The seasonal nature of many industries.
4. Juvenile labor.
5. The monotony of modern factory labor, with its specialized and routine work.
6. Insufficient wages.

Comparatively few Canadian factories have "personnel departments." This department should have access to the individual employee, to overcome difficulties arising out of foremen's mistakes or injudiciousness. It should do the hiring, according to specifications of workers needed, and bring a measure of scientific understanding into play. It should analyze the turnover monthly, by departments, to discover if any department has an exceptionally high mortality, and ascertain the reason therefor. It should check up experience or other recommendations, and look behind the applicant into his personal conditions. By this method the Saxon Motor Company reduced labor turnover by 140 per cent. The Dodge Company has a "blue envelope" committee for considering recommended discharges, to which any worker "on the carpet" may state fully his case. This removes the objectionable possibilities of "too much foreman." Considering the immense possibilities for harmonizing the work of an establishment, by proper supervision and encouragement of employees, the "personnel department" may be made a great saver of money, amounting to hundreds of thousands of dollars annually in factories of several thousand men.

The losses sustained by excessive labor turnover, which is that above 75 per cent., may be enumerated:

1. Clerical cost of hiring and discharging—Time of officials in discharging old and hiring new, plus time on additional records.
2. Cost of instruction given the new employee by foremen and assistants, time on details peculiar to plant, even in the case of experienced men. If training is for skilled labor, cost is relatively larger.
3. Decreased production by new worker before warming up.

4. Breakage and damage by new men, includes actual breakage of machine or tool, stoppage of machine or delay of work, accidents to workers for which employer is liable, and waste and destruction of material.

5. Cost of idle machinery and equipment if the vacant positions are not immediately filled.

It is conservatively estimated that the cash cost of every new employee to a manufacturing firm is $40. It may run as high as $200. A classification drawn for the American Association of Employment Managers put the cost of a highly skilled mechanic at $48, of a mechanic of lesser skill, with a year or two of training at $58.50, of operatives with two or three months' training at $73.50, of unskilled workers at $8.50, and of clerical workers at $29. The average per capita is $40. If a factory has a turnover of 1,500 men in a year, and the cost of each man is $40, all told, there is $60,000 gone. If that can be reduced by one-half, by adequate factory methods removing internal grievances, and attaching the workers, the saving represents a dividend of ten per cent. on $300,000 of capital.

The corrective system has been proven to be the centralizing of hiring and discharging, instead of the department foreman system. Physical and, if possible, mental and experience tests, in hiring, are desirable. Training should be by special instructors, not foremen, the factory conditions should be fully modern. The promotion system should be well designed to encourage the good workman. The Ford Company allows employees to file applications for transfer to another department, and this permits transferring of workers to more congenial tasks, instead of compelling them to leave. Transfer is nearly always tried before discharge, in the expectation that perhaps a change may bring out better effort. Very few Canadian factories have adopted this modern method of handling employees. Some plants have training schools. The Goodyear school cost $42 per month per employee trained. There is no question whatever that there is immense room for improvement in all the conditions under which factory staffs are maintained, and that this question is one of the leading ones that Canadian factory managers must handle in the future.

The Further Development of Export Trade

What Is Needed

FOR reasons that have been frequently emphasized in the press and on the platform, it is essential to the well-being of the country that Canada's export trade should be vigorously prosecuted. Not alone from the standpoint of world needs which require the products of Canadian industry, but for financial reasons, the development of the nation's trade with other countries is alike necessary and urgent.

How may results be best achieved?

Export trade may be viewed from many angles, and its problems are by no means limited to one or two considerations. The tariff question, for instance, has an important bearing on the whole case. It may be enunciated at the outset that two conditions are needed for the promotion of maximum Canadian export trade. These are:—

1. Preferential tariffs with other British countries;

2. Treaty rates with friendly foreign countries by which exclusive markets may be opened for our products.

Valuation of Goods Hampers

Exports from Canada to most of the British Overseas Dominions are hampered by the fact that those countries, as a rule, levy their customs duties on goods from Canada, upon higher values than apply on like goods from the United States. For example, the tariff of Australia consists largely of percentage duties. These duties are assessed upon the value of imported goods as sold for home consumption at the time and place whence shipment is made directly to Australia, plus freight thence to the part of exit from the exporting country, and the whole plus 10 per cent. New Zealand appraises importations similarly for duty purposes. South Africa appraises importations on the same basis, but without adding the 10 per cent. The home selling price in Canada is higher on a very large number of groups of commodities than the United States home selling price on like goods. This is caused very largely by our higher manufacturing costs owing to revenue duties on imported materials, equipment and supplies of a kind not obtainable in Canada. Thus, such goods shipped from Canada into Australia and these other countries are assessed duty on a higher valuation than would apply on like goods shipped thereto from the United States. This results in a larger sum in duties being paid on the same goods shipped from Canada than would be paid on the same goods shipped from the United States. Therefore, purchasers of such commodities in British Overseas Dominions will buy in the United States rather than in Canada.

The same remarks apply to importations into Newfoundland, and most of the other British Overseas Dominions.

It is believed that tariff preferences would overcome the handicaps referred to, while effectually helping to strengthen, develop and consolidate trade and sentiment between the various portions of the British Overseas Dominions.

In Cuba and Brazil the United States enjoys exclusive preferential tariff arrangements which enable her to dominate those markets. By this means last year, the United States controlled over 75 per cent of the total outside trade of Cuba. In the same way she controlled about 70 per cent. of the outside trade of the Philippines, and she absolutely controls the trade of Alaska, Hawaii, Porto Rico, and the recently acquired Danish West Indies.

A policy similar to that followed by the United States toward her overseas dominions is followed by France and Italy, and was followed by Germany when she had overseas dominions.

Canada was the pioneer in inaugurating British preferential tariffs, and it is to be hoped that other portions of the Empire will extend the movement so that all may benefit through the completion of reciprocal arrangements throughout the whole Empire.

France and Italy Denounce Conventions

As regards tariff treaties with friendly foreign countries, by which markets may be opened for Canadian products, France and Italy have denounced their conventions with Canada, as well as with other countries, in order that they may be able to negotiate fresh conventions, and these conventions will be revised, no doubt, in the near future. France

has announced her intention to inaugurate fresh conventions on the basis of exclusive tariff arrangements with each country with which she negotiates.

New and valuable markets for Canada will undoubtedly be opened up by means of British preferential tariffs and treaties with friendly foreign countries, while on the other hand Canada will be in a position to offer growing markets at home for the products of all these countries. Thus, while the British West Indies need Canada's agricultural and factory products, Canada needs their tropical products. France and Italy require our agricultural products, and many of our factory products, and there are numerous commodities produced in these countries in a large way, which are required in Canada.

There are many other factors which bear on the development of export trade. There would likely be considerable development, provided some system of finance was developed to carry such trade. The desirability of a credit organization under the auspices of the Government is apparent. It would put the exporter in touch with the distributor or consumer in the foreign country. Under the present system (speaking for the small exporter) of doing business through export houses, the Canadian manufacturer acquires very little knowledge of the development of export trade, as in many cases the export merchants buy the goods outright in Canada. In some markets there is no doubt but that conditions of this kind are bound to prevail for years, since the business is built up on the special knowledge gained by experienced export houses of local conditions and requirements. Then again, the export house is not very anxious to put the manufacturer in touch with his customers. It would be in the best interests of Canadian manufacturers, and in the development of industry generally, to put them in direct touch with the markets of foreign countries. This, however, cannot be done unless some financial system is devised which has the recognition and support of the Government, and which will be participated in by the financial institutions and business men of Canada.

Such an organization would provide itself with general information essential to the development of export trade, as well as with a list of prospective customers to all manufacturers dealing through such an organization. Furthermore, it would be a stabilizing influence, which is vitally needed at the present time, to stimulate manufacturers to further effort and provide an incentive for the formation of groups of manufacturers making similar lines of goods for export, and finally, since large production is the chief factor in cheapness of production, the effect would be reflected in lower costs for goods made for the domestic market, with the resulting benefit to the Canadian consumer, and Canadian manufacturers could attain for themselves their proper position in the industrial world.

A New Census of Canada's Developed Water Power

Compiled by Dominion Water Power Branch

THE Dominion Water Power Branch Department of the Interior, and the Dominion Bureau of Statistics, Department of Trade and Commerce, have, through co-operation, just completed an exhaustive census and analysis of the developed water power in Canada. The figures, which are complete to January 1st, 1920, are exceptionally interesting, and are indicative of the marked manner in which the water power resources of the Dominion are being put to advantageous use. Practically every great industrial centre in Canada is now served with hydro-electrical energy, and has within easy transmission distance ample reserves of water power. Active construction in hydro-electrical enterprise is fast linking up the few centres which are still unserved, and which have water-power resources in their vicinity. In those localities where water power is not available, nature has bountifully supplied fuel reserves of coal, gas or oil.

According to a recent computation, the water power resources of the British Empire have been placed at from 50 to 70 million horse power. This does not include such territories, formerly under control of the Central Powers, as will fall in future under British influence. To this total Canada contributes in the neighborhood of 20 million horse power. This figure represents the power available at sites at which more or less definite information is to hand. Continued investigation will undoubtedly add to this figure.

According to the statistics just compiled, there is installed throughout the Dominion some 2,418,000 turbine or water wheel horse power (Table 1), of which 2,215,000 horse power is actually and regularly employed in useful work. The larger figure includes the total installed capacity at full gate, including reserve units. It does not, however, include hydraulic excited units. A large number of the plants now operating are designed for the addition of further units as the market demands. The ultimate capacity of such plants, together with that of new plants now under construction, total some 3,385,000 horse power.

Of the total power installed, 1,756,791 h.p., or 72.7 per cent. is installed in central electric stations. By central electric stations are meant stations which are engaged in the development of electrical energy for sale and distribution. Central station power is sold for lighting, mining, electro-chemical and electro-metallurgical industry, milling and general manufacturing. It is, apparent, therefore, that the central station total listed in column 3 includes a portion of the totals listed in columns 4 and 5 as used in other industries. In the pulp and paper industry 473,265 h.p. is utilized, of which 381,631 h.p. is generated directly from water in pulp and paper establishments, while 91,634 h.p. is purchased from hydro central electric stations.

Hydro power used for other purposes and other industries may be listed as follows: For lighting purposes, 434,613 h.p.; in mining industry, 177,728 h.p.; in flour and grist mills, 42,736 h.p.; in lumber and saw mills, 37,918 h.p.; in other manufacturing industries, 172,955 h.p. These figures are evidence of the widespread manner in which the Dominion's water power resources are being applied to the furtherance of its industrial development. In further reference to the foregoing total of water power developed in Canada, it might be noted that during the fiscal year ending March 31st, 1919, there were exported from plants included in tabulation, 175,000 h.p. years.

The total installed water wheel and turbine horse power in hydro central electric stations is 1,756,791 h.p. Fuel auxiliaries installed as stand-bys to these hydro stations bring the total installed primary capacity up to 1,873,989

h.p., connected to 1,449,180 k.v.a. dynamo capactiy. The total capital invested in these central stations, inclusive of transmission and distribution systems, is $369,464,961, or an average of $210 per installed primary horse power.

Of special interest to engineers is the actual cost of construction of hydro-electric power stations, exclusive of transmission and distribution systems. The figures of 70 representative hydro-electric stations throughout the Dominion, with an aggregate turbine installation of 745,797 horse power, show a total construction cost of $50,740,468 (pre-war figures), or an average of $69.11 per installed horse power. This cost includes the capital invested in construction of dams, flumes, penstocks, and all hydraulic works, and of power stations and equipment. It excludes real estate and transmission and distribution equipment. The figure in brief represents the capital cost of construction at the power site.

With a water power development of 274 h.p. per thousand population, Canada stands well in the forefront in respect to availability and utilization of hydro power resources, being only surpassed in this respect by Norway. The enormous water power reserves still untouched form a substantial basis for the progressive exploitation and development of other natural resources, and, if properly co-ordinated with the development and utilization of the enormous fuel resources of the Dominion, are an assurance of continued industrial expansion and prosperity.

Erecting New Plant

Hayward Lumber Co., Limited, Edmonton, Have Outgrown Their Old Factory

The manufacturing business of the Hayward Lumber Co., Limited, Edmonton, has grown so rapidly since its inception in 1916 that they have outgrown their plant and are now erecting a new plant. The main building will be 65 x 162 feet, two full storeys, of concrete and brick, and as nearly fireproof as possible. They are also erecting a power-house and dry kiln, the latter being one of the most modern in Western Canada. It is hoped to have the new plant completed and operating by midsummer or early autumn. The product of the company is windows, doors, special mill work, interior finish of all kinds, mouldings, turnings, etc. Approximately from 65 to 75 hands will be employed, while the investment is about $100,000.

The Hayward Lumber Co. started operations in 1905 at Vermilion, Alta., at which time G. E. Hayward was sole owner. In 1911 incorporation with an authorized capital of $100,000 was secured. In 1916 the capital was increased to $250,000. During this year the head office was moved to Edmonton, and a factory was acquired. In addition to the manufacturing plant, eighteen lumber yards throughout Alberta are operated. Mr. Hayward is president, holding practically all the stock. John Hening is secretary-treasurer.

Distribution of Developed Water Power in Canada by Provinces and by Use of Power, Jan. 1st, 1920

	DEVELOPED WATER POWER.							UNDEVELOPED WATER POWER.
	Total Waterwheel and Turbine Horsepower installed.	Total Waterwheel and Turbine Horsepower installed for use in			Total Horsepower actually employed.	Ultimate Designed Capacity of Plants now operating or under construction in Horsepower.	Installed Horsepower per 1,000 Population.	
		Central Electric Stations.	Pulp and Paper Industry.	Other Manufacturing Industries.				
1	2	3	4	5	6	7	8	9
YUKON	13,199	10,000	....	....	11,349	13,199	1,467	100,000
BRITISH COLUMBIA	308,167	211,043	46,962	46,094	276,795	350,832	429	3,000,000
ALBERTA	32,992	32,580	....	17	31,754	33,070	56	466,000
SASKATCHEWAN	....	....	....	....	...	....	....	567,000
MANITOBA	83,447	71,790	....	....	75,100	297,047	135	3,218,000
ONTARIO	1,015,726	794,621	158,095	99,230	934,015	1,460,920	360	5,800,000
QUEBEC	910,029	623,088	249,332	270,961	838,071	1,146,465	391	6,000,000
NEW BRUNSWICK	18,080	9,378	2,693	6,009	16,657	29,115	49	300,000
NOVA SCOTIA	34,323	4,064	16,183	12,276	29,359	52,202	66	100,000
PRINCE EDWARD ISLAND	1,933	227	....	1,789	1,621	1,958	21	3,000
TOTALS	2,417,895	1,756,791	473,265	436,376	2,214,721	3,384,808	2,984	19,554,000

NOTE.—The central station power listed in Col. 3 is developed for sale. Part is sold to Pulp and Paper and other industries, and such part is included in Cols. 4 and 5, along with the power that is directly installed in these industries.

There were exported from plants included in the tabulation, 175,000 horsepower years in the year ending March 31st, 1919.





Two Jolly Groups at the Massey-Harris Plant, Brantford

On the left is shown one of the teams in the inter-departmental league; on the right, one of the girl employees' soft ball teams

Recreational Opportunities for Workers

The Big Four Group of Industries in Brantford Have Inaugurated Successful Scheme for Promoting Healthy Recreation Among Their Employees—Playing Fields Are Provided and an Organizing Industrial Secretary is Employed

By WELFARE WORKER

FOUR of the largest industries in Brantford, known locally as the "Big Four," have, during the past year, gone in actively for the promotion of recreational activities among their employees, under the direction of an industrial secretary. The four are the Cockshutt Plow Company, the Massey-Harris Co., the Verity Plow Co., and the Waterous Engine Works. So successful has been their effort to provide recreational opportunities for their employees that other local industries are making provision for similar activities, while the industrial secretary, Harry Fleming, who inaugurated this particular line of work in Brantford, has had numerous calls from other cities to go and explain the system.

How the Work Started

The experience of the Brantford "Big Four" will be of interest to all who have the welfare of their employees at heart, and a brief description of what is being done should prove of value at the present moment, when organization for the outdoor recreations of the summer season is under consideration.

Early last summer, Mr. Fleming, who was then the industrial secretary of the local Y.M.C.A., inaugurated recreation fields in connection with three of the plants mentioned, and promoted recreation for the employees. Tennis courts, indoor baseball diamonds, quoit drives and shop picnics were featured, also shop talks at the noon hour. This work grew to such a large extent in a few months' time that four of the plants decided to employ the industrial secretary to devote his entire time to this feature.

During the summer soft ball leagues were organized in the different plants which were inter-departmental, and quoit and tennis tournaments were held. The employees entered into the spirit of these games in a very enthusiastic way. In promoting the inter-departmental activities, it was the intention to persuade every man in the shops as far as possible to take part. When the whistle blew at 5 o'clock recreation fields were at times crowded to capacity. Soft ball games were scheduled every afternoon in the week at this time, when the men, clad in their working clothes and overalls, were glad to have the opportunity for organized recreation. The departmental spirit was cultivated and in this way co-operation was promoted amongst the employees in the various departments. The various departments had their own teams, and when their games were played would turn out in large numbers to witness their mates perform.

The work during the summer months got so extensive that it was decided to organize a service committee in each plant to handle the varied activities. It was found that this work could best be promoted by a trained man, who had a keen knowledge of athletics and organizing ability, and was tactful in handling men.

This work has proved to be very successful and necessary in the shops, as it helps to break down barriers which often arise between employees of different departments. Then, when these men meet in organized games, they very soon get over their difficulties and a great spirit of good fellowship results.

Fall and Winter Activities

During the fall and winter months bowling leagues in each shop have been featured. Two of the factories have their own skating rinks. Hockey leagues have been organized. Foremen's clubs have been inaugurated.

A new feature has been the Industrial Boys' Club, which has rooms in a central location, for the four factories. The industrial secretary handles these boys on Sunday afternoon in Bible class work and one night a week there is a varied programme put on for their entertainment—sometimes boxing, wrestling, moving pictures, banquets, and

popular talks. In this way the boys of the factories are reached and recreation promoted for them.

At least once a month each one of the factories has a big social night, when all the employees and their families and lady friends gather together and a big programme is put on, consisting of music, games and refreshments. This provides an opportunity for the employees to get better acquainted with each other and their families, and promotes a great spirit of helpfulness and friendship.

Held Baby Contest

Spanish River Pulp Employees Vote on Best Looking Babies in Spanish River Families

A recent issue of the *Spanish River News*, the weekly paper issued by the Spanish River Pulp & Paper Mills in the interests of their employees and the community, contains photographs of over a hundred children entered in a baby contest held by the company. Three $15 prizes were awarded by the company, following a vote taken among the employees. Speaking of the contest, the *News* says:

"The future of Spanish River depends upon the babies. They are growing so fast now, you can hardly believe your eyes. Soon they will be going to school. Tell them about the paper business. If you start your boy early enough, and give him a good education, the company will help him to learn the paper business and he can get to be a superintendent, an assistant superintendent, a foreman or a manager. You can't keep a good man down. If he's got the brains, and shows that he has; if he works and can be 'shown' without pretending 'to know it all,' he's got a good future ahead of him. Give these babies a chance and Canada will be a better nation, Spanish River a finer company, and you and your wife prouder and happier folks."

It is scarcely necessary to say that this is the kind of attention from the company to its employees which is going to help to maintain friendly relations.

Works Council Adopted in Winnipeg

Manitoba Bridge and Iron Works, Limited, Have the Plan Now in Operation—Some of the Regulations Governing the System

Among recent Canadian companies to introduce the Works Council plan are the Manitoba Bridge and Iron Works, Limited. Employees voted favorably on the adoption of the plan on November 29, 1919, and councils have subsequently been established in the company's works at Winnipeg and Selkirk. Up to the present time, the scheme promises well.

The plan follows the general idea of Works Councils established within the past few years. It provides that employee representatives shall have an equal voice and voting power with management representatives, while the basis of representation shall generally be one employee for each department, with a minimum of six employee representatives on the council. Foremen, or other employees having the power of employment or discharge, are not eligible for nomination, and only employees who are citizens of Canada, twenty-one years old or over, and who have been at least a year in the employ of the company, are eligible.

Provision is made so that the election of employee representatives may be carried out by secret ballot, and it is also provided that an employee representative may be recalled, a special election by secret ballot being arranged for the purpose.

An executive officer of the company, or someone designated by the management, shall act as chairman of the Works Council, and a secretary shall be appointed by the superintendent of the works, but neither shall have a vote. A majority of the employee representatives, together with a majority of the management representatives, shall constitute a quorum.

Meetings are to be held monthly, while provision is made



Recreational opportunities for employees during the noon hour and after working hours are provided, as shown in the illustration, by the Packard Motor Car Co., Detroit.

Photo by courtesy of "Michigan Manufacturer."



A soft ball game being played after 5 p.m. at the works of the Verity Plow Co., Brantford. The different departments each back their own teams and some exciting contests are staged. It is the idea to have every man take part and make the sport of general benefit to the entire working force.

for the calling of special meetings and the appointment of sub-committees.

The duties and powers of the Works Council are thus set forth:

1. The Works Council may consider and make recommendations on all questions relating to working conditions, protection of health, safety, wages, hours of labor, recreation, education and other similar matters of mutual interest to the employees and the management. It shall afford full opportunity for the presentation and discussion of these matters.

2. The Works Council may, on its own motion, investigate matters of mutual interest and make recommendations thereon to the works management, and the management may refer matters to the Works Council for investigation and report.

3. The Works Council may confer with the superintendent, or other person designated by him, in regard to all matters of mutual interest, and shall receive from the management regular reports in regard to accident prevention, sanitation, restaurants, medical service, employment, educational programmes and recreational activities, including information as to the cost, efficiency and results obtained.

4. The Works Council shall be concerned solely with shaping the policies of the company relating to the matters heretofore mentioned. When the policy of the Council as to any of these matters has been settled, its execution shall remain with the management, but the manner of that execution may at any time be a subject for the consideration of the Works Council.

The constitution of the Works Council makes the necessary provision for procedure and provides for the settlement of cases where no agreement can be reached in the Works Council itself, first through an appeal to the president of the company and, failing that, by arbitration. Any discrimination against any employee is expressly forbidden.

Prizes for Suggestions

Massey-Harris Co., Limited, Offer $295 for Division Among Their Employees

Following a proposal from the employees' representatives on the industrial councils of the Toronto and Brantford plants of the Massey-Harris Co., Limited, a committee was appointed to investigate and recommend some plan whereby the making of suggestions for improvement in the operation of the industry might be encouraged. In view of the favorable report of this committee, directors of the company are offering 54 prizes, aggregating $295, for competition among employees. These will be awarded on the basis of merit to those who, during the period of January 1 to June 30, 1920, submit the most valuable suggestions of plans resulting in more efficient or economical methods of operating the factories of the company. A number of regulations governing the competition are provided.

Award Service Stars

Laurentide Co., Limited, Gives Distinguishing Mark to its Older Employees

The Laurentide Co., Limited, Grand Mere, P.Q., pay a graceful tribute to the older members of their staff by placing a red star opposite the name of each employee who has served the company for five years, these being affixed to the employment office records. A list of employees who have served five years or more has recently been compiled by the company. It shows one man with a record of thirty-six years who receives seven stars. Eleven men get six stars and 108 four stars. This tribute to length of service is appreciated and the attention inspires greater loyalty to the institution. It is a little plan that might be adopted to advantage by other companies.

Long Service Buttons

Spanish River Pulp and Paper Mills Do Honor to the Old Employees in Their Plants

Long service buttons in recognition of faithful service over a period of years were given to employees of the Spanish River Pulp & Paper Mills at mass meetings held recently at Sault Ste. Marie, Espanola and Sturgeon Falls. Officials of the company were present in each instance and the employees were represented in the proceedings by union officials, who spoke appreciatively of the good relations existing between management and men. Advantage was also taken of the occasion to explain the group insurance scheme and the new arrangement by which employees will have holidays with pay varying in length according to term of service.

The long service button is of gold, centred with a maple leaf, on which is affixed a pearl, and surrounded with a band on which appears the name of the company. This was given to all employees who had served the company for five years. At the completion of ten years, the pearl is to be replaced by a ruby; at fifteen years by a sapphire and at twenty years by a mind. It is hoped by this means to encourage men to stay with the company and thus reduce the labor turnover.

What London Did for Made-in-Canada

Story of the Big Made-in-Canada Week Which Was Successfully Staged in the Forest City Last Month—Merchants and Manufacturers Co-operated Whole-heartedly—All Sorts of Functions Were Held

By THOS. E. WALSH

"LET'S show Canada what London can do," said one of the advertisements appearing in local newspapers announcing the big "Made-in-Canada" week, held in London April 19 to 26, and London did!

After the demonstration there is not a bit of doubt in the minds of Londoners and thousands of residents of Western Ontario that they should demand, insist upon and otherwise tell their respective dealers that they want only goods made in Canada, because they have seen or heard of those goods during the week and are firmly convinced that Canada's productions are equal and, in many instances, superior to those of any other country in the world.

Mass meetings at which prominent speakers talked, carnivals where "Made-in-Canada" costumes predominated, and a parade so full of "Made-in-Canada" floats and suggestions that the old threadbare simile of the "meat in the egg" is the only one that can be aptly used for descriptive purposes, were some of the excellent publicity stunts employed by the London Advertising Club to put across the idea and make the week a success. And it certainly was a success! If you have any doubt, ask the hundreds of small boys and girls—young Canadians—future buyers of Canadian-made goods, what they think of the samples of cakes, candies, ice cream, and, in fact, everything that is good to eat, that were given to them during the week; ask any of the hundreds of women of London and district who won prizes donated by Canadian manufacturers for the best answers to a questionnaire prepared by the London Advertising Club; ask any of the manufacturers who took an active part in the week's activities, or see for yourself the moving picture of the giant parade which was held under threatening weather conditions and which was "filmed" by several companies and will be shown throughout the different cities of Canada and the United States.

"Let us hold a 'Made-in-Canada' week," suggested one of the members of the London Advertising Club at a meeting one night, and to suggest anything that looks good for London or Canada to that live organization is like applying a spark to a charge of gasoline—you get action immediately. Committees were appointed, a date was set, and to T. H. Yull, president of the Federal Advertising Agency, London, and secretary of the London Advertising Club, was entrusted the task of "putting the idea across." Tom Yull is known in Canada from coast to coast as a "live wire," and when he puts his shoulder to the wheel something moves. Under his direction a canvass was made of every merchant in London. This canvass secured the names of five or ten Canadian manufacturers with whom the merchant did business. Then a letter was sent out to these manufacturers. Tom Yull knows how to write letters, too, because the letters that he sent to those manufacturers pulled like mustard plasters. Most of them brought a reply and in the majority of instances the reply consisted in part of a cash donation to be used in making the week a success. London manufacturers were canvassed personally, and they did nobly, too. Then it was up to the club to arrange for window displays. Practically every retailer in the city agreed to give up his store windows during the week for a display of Canadian-made goods and to use the standard pennants, price tickets and display cards prepared by the Advertising Club. The pennants were in the national colors, while the price tickets and display cards were green, in the shape of a maple leaf.

Prizes were offered for the best window displays, the best floats and for the best costumes in the parade and carnival descriptive of "Made-in-Canada" goods.

Canadian manufacturers from the Atlantic to the Pacific responded nobly to the request for co-operation. Letters by the dozens containing checks large and small were sent in to be used as the club saw fit, and with the checks came words of encouragement and commendation. Following the checks, articles to be used as prizes to be distributed amongst the women of London and district began to pour in. First came a kitchen cabinet valued at $75, then a taupe fox stole, same value. These were just fine for prizes for women; so were the dozens of pairs of silk hose, boxes of candy, the hats, corsets, sugar and tea, soap and cleaning powder, butter, bread, milk and ice tickets, quarters of meat, laundry service, wash tubs and boards, garden seeds, face powders, perfumes, polish mops, mattresses, and many other articles, all dear to the heart of femininity, but too numerous to mention; but when it came to handing out a spraying machine, a concrete bumper, an auto jack, men's overcoats, men's suits, shoes, hats and caps, in many instances to unmarried women, it required some tact and diplomacy.

These prizes were awarded in order of value to the women sending in the best answers to the questionnaire on advertising and merchandising problems, prepared by the club and distributed to the women of the city and district through the stores displaying "Made-in-Canada" goods during the week.

Following are the questions answered by hundreds of women and answered very intelligently, too:

Do You Buy Made-in-Canada Goods? (Say why.)
Do You Buy Nationally Advertised Goods? (Say why.)
Do You Read Advertisements? (Say why.)
Do You Always Find Advertised Goods Easily in Stores?
Do You Like to See Pictures of Advertised Articles? (Say why.)
Do You Purchase Much by Mail? (Say Why.)
Have You Greater Confidence in Advertised Lines Than Those Not Advertised? (Say Why.)
Why Should You Save Canadian Money *Now?*
Which is the Best Dressed Window This Week? (Say why.)
Give Five Common Complaints Against Store Methods.
Name Five Things You Like Best About London Stores.

IMPORTANT DIRECTIONS.

The following points have a direct bearing on the awarding of prizes:

1. Write in ink; neatness will count.
2. All questions must be answered.
3. You must say WHY you do not favor.
4. Do not deal in generalities, such as saying "poor service." Say WHY it is poor service.
5. No person to receive more than one prize.
6. All questionnaires to be handed into the *Free Press* or *Advertiser* by Saturday, April 24.

Name and Address.....

And now for a brief description of the doings during the nine days that "Made-in-Canada" goods were talked and displayed in London. Monday morning, April 19, when the shades of darkness rolled away, disclosed practically every store window in the city ornamented with some kind of "Made-in-Canada" display. Some of the windows were works of art and their creators certainly entitled to the dandy prizes, cash and merchandise, given by the club.

Tuesday was held the long-awaited event—the big parade, with floats, bands and free samples. The weatherman must have been in league with foreign firms and products, because he frowned upon London all day and wept at intervals, when he thought of what the success of the week would mean. In spite of his work, however, the parade was a success, and a huge success, at that. It was over two miles long and took nearly an hour to pass a given point. First prizes of silver cups each were awarded to Beatty Bros., Fergus, Ont., in the manufacturers' class; Small & Ingram, Ltd., London, in the retail merchants' class; Ford Motor Company, Ford, Ont., in the decorated "Made-in-Canada" automobile class, and the I.O.D.E. in the women's organization class.

Thursday, the night set aside for the big street carnival and costume dance in the armouries, the old weatherman worked overtime again to such an extent that the street carnival had to be cancelled, but "on with the dance" was the watchword for the armouries, and hundreds in costume gathered in the big buildings for a night of fun. Club House Brand Catsup danced with Old Dutch Cleanser and quite frequently tried to bump Lawrason's Snowflake Ammonia off the floor, but was frustrated by a box of Cornflakes, who, in spite of the squareness of his makeup, was able to draw his trusty sword in defence of his lady love. Other costumes descriptive of well-known Canadian products were: Black Watch Chewing Tobacco, Perrin's Biscuits, Gaste's Cigars, Miss "Maiden Canada" McCormick's Jersey Cream Sodas, Jeffress Olive Butter, Sweetheart Brand Peanut Butter, Jap Cigars, Mazola, O-Pee-Chee Chewing Gum, Mintees, together with a number portraying Canadian events and people.

Monday night, April 26, was set for the big close. Prof. J. N. Robertson, of Toronto; F. W. Stewart, Montreal, vice-president of the Associated Advertising Clubs of the World; Miss Storey and Miss G. E. Kennedy, of the *Women's Century Magazine*, and local speakers told of the Made-in-Canada movement, its inception and what it meant to Canada in general, and asked the hundreds of men and women present to give Canadian manufacturers a fair chance. After the programme of speeches, singing and musical numbers, the names of winners of prizes in the questionnaire contest were read out.

Altogether it was a wonderful week for Canada. Londoners responded nobly to the request of the advertisement to "Let Us Show Canada How" and the other advertisements that followed, and once again established a precedent in Canada, and started a movement that is likely to spread from coast to coast, benefiting manufacturers, merchants and individuals alike. In the words of Mr. Stewart:

"Canada is great in industry, as well as in agriculture. The goods produced in this land are not only as good, but superior to those of other countries. Canadian goods can take a place with those from any country. All Canadian manufacturers wanted was a fair chance. They did not want to be given a preference, but they did not want their own people to give foreign goods the preference."

The Steel Merger and Canada's Export Trade

What It Means to Canada

UNQUESTIONABLY the chief significance of the merger of the Dominion Steel Corporation, the Nova Scotia Steel & Coal Company, the Canada Steamship Lines, Limited, and the various other companies involved in the formation of the new British Empire Steel Corporation rests in the possibilities that are unfolded for the building up of an immense export trade in coal, pig iron and steel billets. The known resources of the constituent companies in coal and iron ore, and their close proximity to the seaboard, have all along been reckoned as advantages that would in time redound to their profit, but hitherto there have existed obstacles which have hindered their greatest possible development. Now, with the powerful combination of British and Canadian capital behind these industries, and the more efficient and economical operation which will be possible, their progress should be unhampered and continuous.

The province of Nova Scotia, in which the principal constituent industries are located, is destined for great expansion as a result of the merger. Already a good start has been made, and the Atlantic seaboard province will feel the effects of the new development in increased population and greater all round prosperity. For not only should existing industries expand, but a plentiful supply of fuel and raw materials should attract other industries as well. In this connection there should be no delay in carrying through the provincial programme of hydro-electric development, under which it is proposed to gird the province with one continuous power line. The good roads programme should also be pushed, for with the industrial development in prospect, there will be every incentive for further agricultural development.

Potentialities in the way of exports of coal, pig iron and steel are immense, and in some quarters have been estimated at half the value of the Western wheat crop. This will be practically new business for Canada, swelling the Dominion exports with amazing rapidity. But, in addition, the new Corporation will have the output of its shipyards, car shops and factories, which will be using the raw material of its steel works. So far as shipbuilding operations are concerned, there is every reason for prophesying great developments. With plants at Halifax, Quebec, Kingston, Collingwood and Port Arthur, there will be a large capacity, which it is expected to operate to the full. Then, too, the inclusion of the Canada Steamships System takes care of one very important feature—the provision of water transporta-

Up to May 1, the companies definitely included in the consolidation were the Dominion Steel Corporation and its subsidiaries; Nova Scotia Steel & Coal Co., Limited, and its subsidiaries; Canada Steamship Lines, Limited, and its subsidiaries; Canada Foundries & Forgings, Limited, and its subsidiaries; Maritime Nail Co. and its subsidiaries; Collingwood Shipbuilding Co., Limited; Port Arthur Shipbuilding Co., Limited; Halifax Shipyards, Limited; Davie Shipbuilding & Repairing Co., Limited. (With the exception of Canada Steamship Lines, Limited, all the foregoing are members of the Canadian Manufacturers Association.) It is possible that several other enterprises will also be in-

The authorized capital of the British Empire Steel Corporation is $500,000,000, of which $50,000,000 is in 7 per cent. cumulative preferred stock; $100,000,000 in 8 per cent. participating preferred stock; $150,000,000 in 7 per cent. non-participating preferred stock, and $200,000,000 in common stock. Of the four classes there will at present be issued $37,000,000, $25,000,000, $68,000,000, $77,000,000, respectively.

Necessaries of Life Are Defined by Court

Supreme Court of Canada Deals With Appeal Against Authority of Board of Commerce to Control Price and Distribution of Newsprint paper—Claim That it is a Necessary of Life is Not Admitted—Justices Give Their Views

DURING the past month an exceedingly important judgment was given by the Supreme Court of Canada, in the case of an appeal of Price Bros., Limited, pulp and paper manufacturers, who disputed the power vested in the Board of Commerce to control the price and distribution of newsprint paper. The case is clearly set forth in the review and findings of Mr. Justice Anglin, who says:—

"Price Bros. & Co., Limited, appeal from an order of the Board of Commerce, dated the 6th of February, 1920, by leave of a judge of this court, granted under s. 41 (2) of the Board of Commerce Act, 9 & 10 Geo. V., c. 37. The order purports to have been made by the Board in the exercise of jurisdiction conferred on it by the Board of Commerce Act and the Combines and Fair Prices Act (9 & 10 Geo. V., c. 45) and also of jurisdiction formerly exercised by Mr. R. A. Pringle, K.C., as Paper Controller, which His Excellency the Governor-in-Council purported to vest, in a modified and extended form, in the Board of Commerce, by order-in-council dated the 29th of January, 1920.

Questions Resolved Into One

"While several questions are formulated in the petition on which leave to appeal was obtained, they all seem to resolve themselves into one—the power of the Board to make the impugned order. Three clauses of it—Nos. 1, 2 and 4—are specially challenged. Clause No. 1 prohibits the appellant from taking any price exceeding $80 per ton for newsprint, declaring that any price in excess of that sum "shall be deemed to include unfair profit." Clause No. 2 forbids the appellant accumulating and withholding from sale any quantity of newsprint beyond an amount reasonably required for the ordinary purposes of its business. These two clauses are upheld by counsel representing the Attorney-General of Canada on the ground that newsprint was rightly declared by the Board to be "a necessary of life" within s. 16 of the Combines and Fair Prices Act, and that as such the Board was empowered to deal with it as it did in those clauses.

"The argument covered a wide field, the constitutionality of both statutes involved being challenged and various questions discussed as to the construction and sufficiency of the findings of fact in the order. In the view I take of the matter, however, it seems necessary only to consider on this branch of the case whether the finding or declaration that newsprint is a necessity of life within s. 16 of the Combines and Fair Prices Act can be upheld. If it cannot, the jurisdiction of the Board to make clauses 1 and 2 of its order cannot be maintained under that Act and the Board of Commerce Act. So far as they may be supported under any powers vested in the Board as Paper Controller, they may be more conveniently considered with clause 4, which, it is common ground, can be supported only under the latter powers."

Judge Anglin's Conclusions.

So far as the constitutionality of the Board's action is concerned, Mr. Justice Anglin's summing up was that, "I am, therefore, of the opinion that the order appealed from exceeds any powers which it was competent for the Governor-in-Council on the 20th of January, 1920, to confer on the Paper Controller, and cannot be supported under the Board's jurisdiction to discharge the duties of that office." Continuing, Mr. Justice Anglin says:—

"On the other branch of the case, I am of the opinion that the Board erred in declaring newsprint to be a "necessary of life," under sec. 16 of the Combines and Fair Prices Act, and that it therefore exceeded its jurisdiction as administrator of that Act in making the order appealed from. Sec. 16 is as follows:

" '16. For the purposes of this part of this Act, the expression "Necessary of life" means a staple and ordinary article of food (whether fresh, preserved, canned or otherwise treated), clothing and (sic) fuel, including the products, materials and ingredients from or of which any thereof are in whole or in part manufactured, composed, derived or made, and such other articles of any description as the Board may from time to time by special regulation prescribe.'

"The following three rules of construction are so well known that it seems almost pedantic to restate them; but their co-ordination and relations *inter se* are perhaps not always equally well understood.

"Lord Wensleydale's golden rule, that the grammatical and ordinary sense of words is to be adhered to unless that would lead to some absurdity, repugnance or inconsistency so great as to convince the Court that the intention could not have been to use them in that ordinary signification, applies to general words, as to other words. *Generalia verba sunt generaliter intelligenda.* 3 Inst. c. 21, p. 76; Attorney-General v. Mercer, 8 A. C., 767, 778.

"On the other hand, general words must be restricted to the fitness of the subject matter (Bacon's Maxims, No. 10), and to the actual apparent objects of the Act (River Wear Commissioners v. Addison, 1 Q. B. D., 546; 2 A. C., 743, 750-1, 757-8), following the intent of the Legislature to be 'gathered from the necessity of the matter and according to that which is consonant to reason and good discretion.' Stradling v. Morgan, Plowden, 199; Cox v. Hakes, 15 A. C., 506, 517-8.

Where Statements Are General

"Where general words are found, especially in a statute, following an enumeration of persons or things all susceptible of being regarded as specimens of a single genus or category, but not exhaustive thereof, their construction should be restricted to things of that class or category (Reg. v. Edmondson, 28 L. J. M. C. 213), unless it is reasonably clear from the context or the general scope and purview of the Act that Parliament intended that they should be given a broader signification.

"Recent applications of the rule last stated, and usually known as the *ejusdem generis* rule, are to be found in the judgments in the House of Lords in Stott (Baltic) Steamers, Ltd., v. Marten, 1916 A. C., 304, and the judgment of Sankey, J., in Attorney-General v. Brown, 36 T. L. R. 165.

"At first blush the words 'of any description' appended to the general words 'other articles' would almost seem to have been inserted to indicate an intention to exclude the application to this section of the *ejusdem generis* rule, and to require that the general words 'other articles' should here be given their ordinary general construction. Yet, although no authority has been cited where that rule has

been applied, notwithstanding the addition of the words 'of any description' to such general words as 'other articles,' it has frequently been acted on where the equally comprehensive word 'whatsoever' (See Stroud's Judicial Dictionary, 2 ed. p. 223), has been appended to similar general words, such as 'other persons.' Thus, in construing the phrase, 'no tradesman, artificer, workman, laborer, or other person whatsoever' of the Sunday Observance Act of 1677, it has been held that a farmer (Reg. v. Cleworth, 4 B. and S., 927) a barber (Palmer v. Snow, 1900, 1 Q. B. 725), and a coach proprietor (Sandiman v. Beach, 7 B. and C., 96) are not within its purview. In Fish v. Jesson, 2 Vern, 114, a devise of 'all debts, accounts, reckonings, and demands whatsoever,' made to a servant was held not to include a trunk belonging to the testator in his hands at the date of the will and at the death of the testator, which contained jewels, medals, etc. Again, in Harrison v. Blackburn, 34 L. J. C. P., 109, the description in a Bill of Sale:

"'all the household goods, furniture, stock in trade, and other household effects. . . . in and about the dwelling house and all other personal estate whatsoever' of the assignor—was held not to carry his term or interest in the house. In Ystradyfodwig and Pontypridd Main Sewerage Board v. Bensted, 1907 A. C., 264, at p. 268, Lord Halsbury referred to

"'A very familiar canon of construction that, where you have a word which may have a general meaning wider than that which was intended by the legislature, when you find it associated with other words which show the category within which it is to come, it is cut down and over-ridden according to the general proposition which is familiarly described as the *ejusdem generis* principle.'

What Did Parliament Intend

"In the present case, far from indicating that an application of the restrictive rule would probably defeat the object of the statute, or that there is good reason for believing that the legislature intended the general words it has used, to bear a more extended meaning than if restricted to things similar in kind to those by the numeration of which they are preceded, consideration of the character of the Act and of the context as a whole, rather leads to the contrary view—that Parliament cannot have meant that the words 'other articles' should bear their ordinary broad signification. In the first place, if they did, the enumeration of articles of food, clothing and fuel was quite unnecessary, and the restriction to articles 'staple and ordinary,' the careful particularization of 'the products, materials and ingredients from or of which any thereof are in whole or in part manufactured, composed, derived or made,' and the specification, in the case of food, 'whether fresh, preserved, canned or otherwise treated,' serve no purpose. If the words 'other articles of any description' mean 'anything whatsoever,' the section may be paraphrased thus: '"Necessary of life" means any article of any description which the Board of Commerce may from time to time by special regulation declare to be such.' Can it be that that is what Parliament intended? *Re* Stockport Ragged, Industrial and Reformatory Schools, 1898, 2 Ch. 687, 696.

"Moreover, if s. 17, taken with s. 22, should be regarded as an enactment in the nature of criminal law—as counsel representing the Attorney-General contended, and I incline to think rightly—the Board would thus be enabled by its mere declaration to render criminal the accumulation or withholding from sale, to the extent stated in s. 17, of 'any article whatever,' however little likely to be regarded as a necessary of life as that term is ordinarily understood. It is to me inconceivable that Parliament meant to confer such wide and unheard-of powers. I rather think that no one would be more surprised and shocked than the legislators themselves were they informed that they had done so. I am, therefore, satisfied that Parliament must have intended that the words 'other articles of any description,' in s. 16, notwithstanding their obvious and emphasized generality, should receive a much more restricted construction; and no other restriction that can be put upon them occurs to me which has so much to commend it, as being probably that which Parliament had in mind, as that embodied in the well-known maxim, *noscunter a sociis*. Parliament was dealing with articles of food, clothing and fuel. It had these present to its mind. It must be taken to have been fully cognizant of the legal maxim just quoted and of its embodiment in the *ejusdem generis* rule of construction so frequently acted on by the courts. What more natural than that it should have meant 'other articles' to comprise only things which, like food, clothing and fuel, are requisite to maintain the physical health and vitality of the human body? Medicines have been suggested as falling within such a category; and there are, no doubt, some few other things essential to the life, health and sustenance of the body, which are not strictly articles of food, clothing or fuel, for which Parliament thought it well to provide. I cannot conceive of any genus or category that would include newsprint with articles of food, clothing and fuel. Nor, in my opinion, had there been no definition whatever of the term 'necessary of life,' would the Board have been justified in treating newsprint as such.

"Even restricted as I think it should be, the discretion vested in the Board by its mere declaration to constitute criminal offences in regard to matters not specified by Parliament, may seem open to some objection. But it is certainly much less objectionable than the unlimited and unqualified power for which counsel representing the Attorney-General contended.

"I am for these reasons of the opinion that the order appealed from cannot be sustained either under the jurisdiction of the Board of Commerce as administrator of the Combines and Fair Prices Act, or under that which it may lawfully exercise as Paper Controller."

Judge Idington's Summary

In the review of the case given by Mr. Justice Idington occur these remarks anent the claim that newsprint paper is a necessity of life:—

"In the last desperate resort, as it were, the justification for the order is rested upon the Combines and Fair Prices Act, and the powers of the Board of Commerce thereunder. Section 16 of said Act reads as follows (quoting).

"I am unable to understand how newsprint can under such a definition, 'necessaries of life,' fall thereunder; or anything the Board of Commerce by any due observance of the *ejusdem generis* rule which must be adhered to in the interpretation and construction thereof, may see fit to include within the definition, can be held as falling thereunder. I am, therefore, of the opinion that the order-in-council now in question cannot be properly maintained, and hence that this appeal should be allowed with costs."

Mr. Justice Duff says, in his statement: "As to the last and second paragraphs of the order of the Board of Commerce, I adhere without any doubt whatever to the opinion expressed in the course of the argument that necessaries of life within the meaning of the 'Fair Prices Act' do not comprehend articles which are not necessary by reason of their being required for some purposes connected with the physical life of the individual."

Mr. Justice Mignault, in the course of a long review of the case, refers to the definition of necessaries of life as

given in section 16 of the Combines and Fair Prices Act. He says:

"It is obvious from this definition that in the contemplation of Parliament necessaries of life are primarily articles necessary to sustain life, as distinguished from luxuries. Being necessaries of life, and the requirements of human life being of infinite variety, they cannot be confined to staple and ordinary articles of food, clothing and fuel, and as it was impossible to enumerate them, the Board was given the power from time to time to declare 'such other articles of any description' as it might from time to time by special regulation prescribe, to be necessaries of life. It is argued that the *ejusdem generis* rule should be applied here and that the defining power of the Board should be restricted to articles of the same kind as staple and ordinary articles of food, clothing and fuel. But to so hold would defeat the will of Parliament, for, as I have said, the requirements of human life vary *ad infinitum*, and it would not be difficult to enumerate articles useful or necessary for the purposes of human life which are neither food, nor clothing, nor fuel, such as medicine for the sick, crutches for the lame and eyeglasses for persons with defective eyesight. I think the intention of Parliament to exclude the *ejusdem generis*, or *noscitur a sociis*, rules, is sufficiently shown here by the words "such other articles of any description" (see Larsen v. Sylvester, 1908 A. C. 295, where the House of Lords held that the *ejusdem generis* rule was excluded by the words, "frosts, floods, strikes, and any other unavoidable accidents or hindrances of what kind soever"), and the general scheme of the Act is to entrust to the Board of Commerce the power of defining what articles, other than food, clothing and fuel are necessaries of life, any complete or exclusive enumeration being impossible. I would not, therefore, cut down the generality of the terms of section 16 by resorting to the rule, undoubtedly very useful in many cases, that general terms following special ones are to be restricted to the kind of things specially enumerated. Moreover, if the *ejusdem generis* or *noscitur a sociis* rules apply, the powers of definition conferred upon the Board are entirely meaningless, for the enumerated article alone could be considered necessaries of life.

"This does not mean, however, that this power of definition must not be exercised reasonably; in other words, that the articles which the Board declares to be necessaries of life should not have some relation to the requirements of human life, varied and difficult to define *a priori* though they may be. And I must say that I fail to discover any possible connection between the requirements of human life and newsprint paper. It even appears almost an abuse of language to call it a necessity of life.

"Whatever place newspapers may occupy in modern society, and it is no doubt a very important one, and however indispensable newsprint may be, for educational and other like purposes, it certainly does not proximately or even remotely come within the class of things that can be used for the requirements of human life. I, therefore, am of opinion that the Board acted without jurisdiction in declaring it a necessity of life.

"This conclusion shows that paragraphs 1 and 2 of the order complained of cannot be supported under the authority of The Board of Commerce Act or The Combines and Fair Prices Act, 1919, and these paragraphs therefore were not authorized by Parliament. This being so, it is unnecessary to determine in this case whether Parliament could validly pass these two Acts."

Made-in-Canada Endorsed by Municipalities

Large Number of Urban Centres Throughout Canada Lend Support to the Movement

By SIR JOHN WILLISON
President, Canadian Reconstruction Association

MUNICIPALITIES all over the Dominion have adopted resolutions endorsing the principle that public supplies should be purchased in Canada whenever they can be secured from Canadian factories at reasonable prices. Early in the year the President of the Canadian Reconstruction Association wrote to the clerks of cities, towns, and villages urging that the heavy discount an Canadian exchange was a symptom of an unhealthy national condition and contending that "apparently the only permanently effective remedies are an increase in production in the Dominion, development of export trade, curtailment of unnecessary imports, and substitution to the largest possible extent of Canadian products for commodities."

"In the national interest," the Reconstruction Association argued, "Canada must attain a larger measure of economic independence. It can do so by developing the home market. A pronounced demand for Made in Canada goods would constitute a guarantee of sales which would encourage factory expansion. By such expansion, new wealth would be created through increased production, and steady and profitable employment would be provided for new industrial populations. Any substantial increase in industrial workers would create bigger and better markets for all kinds of farm produce. New factories, expansion of old factories, greater production, more workers, and better agricultural markets mean national progress."

Returns now received by the Reconstruction Association show that the following urban municipalities are giving support to the Made in Canada campaign:—

ONTARIO: Belleville, Chatham, Fort William,, Guelph, Hamilton, Kitchener, London, Niagara Falls, Peterborough, Port Arthur, Sarnia, Stratford, Toronto, Woodstock, Bala, Bracebridge, Brockville, Cache Bay, Campbellford, Capreol, Cochrane, Cornwall, Deseronto, Dundas, Goderich, Kingsville, Midland, Mitchell, Niagara, North Bay, Orangeville, Paris, Picton, Simcoe, Strathroy, Thornbury, Trout Creek, Walkerville, Waterloo, Acton, Beaverton, Belle River, Brighton, Deloro, Havelock, Lucknow, Madoc, Maxville, Newbury, Richmond, Shelburne, Stirling, Tiverton, Wheatley.

BRITISH COLUMBIA: Alberni, Courtenay, Cranbrook, Kamloops, Nanaimo, New Westminster, Port Coquitlam, Prince Rupert, Revelstoke, Trail, Vancouver, Vernon, Victoria, Cloverdale, North Cowichan, North Vancouver, Peachland, Penticton, South Vancouver.

ALBERTA: Calgary, Lethbridge, Medicine Hat, Wetaskiwin, Bassano, Coleman, Tofield, Peace River.

SASKATCHEWAN: North Battleford, Regina, Weyburn, Alameda, Gravelburg, Humboldt, Kamsack, Moosomin, Radville, Yorkton.

MANITOBA: Boissevain, Brandon, East Kildonan, Killarney, St. Boniface.

NOVA SCOTIA: Dartmouth, Lockport, Lunenburg, Mahone Bay, North Sydney, Sydney Mines, Truro.

NEW BRUNSWICK: Newcastle, Sackville, St. Andrews, St. John, Sussex, Woodstock.

PRINCE EDWARD ISLAND: Summerside.

While the Association to date has no complete returns from Quebec, its Made in Canada proposals were particularly well received in Montreal. Mayor Martin strongly endorsed the Made in Canada campaign, and the Montreal City Council unanimously passed a resolution endorsing the purchase of Made in Canada supplies. Similar resolutions have been passed by other Quebec municipalities.

With a view to further development of the home market, the Reconstruction Association in March issued the following "Ten Commandments for Canadian Trade," which were sent broadcast throughout the country to Members of the Federal and Provincial parliaments, newspapers and periodicals, secretaries of labor organizations, manufacturers, clergymen, university professors, officers and directors of steam railways, presidents, vice-presidents, and general managers of Canadian banks, and the head offices and branches of Canadian insurance companies:—

1. BUY CANADIAN PRODUCTS: In doing so, you develop the home market, encourage factory expansion, provide employment for new populations, and create bigger and better markets for all kinds of farm produce. New factories, expansion of old factories, greater production, more workers, and better agricultural markets mean national progress.

2. IMPORT ONLY NECESSITIES, and then only if similar Canadian articles or substitutes are not available. With Canadian money at a discount of from 10 to 15 per cent, exchange with the United States is costing Canadian consumers between $75,000,000 and $100,000,000 a year.

3. PRODUCE TO THE LIMIT IN FIELD AND FACTORY. Increased production means new wealth and is essential to the success of any effort to reduce imports and promote export trade.

4. CO-OPERATE, CONSERVE, SPECIALIZE, STANDARDIZE. These are the means to maximum production of high quality goods at minimum cost.

5. DEVELOP EXPORT MARKETS. Foreign business gives stability to trade. It reduces unit costs, benefits domestic consumers, affords employment to factories and workers in times of depression, and corrects adverse exchange by improving the trade balance.

6. UTILIZE CANADIAN SERVICES. Ship by Canadian carriers through Canadian ports. Patronize Canadian railways, Canadian steamships, and Canadian banks. Place insurance in Canadian companies. Employ Canadian architects, engineers, scientists, and other experts. Spend vacations in Canada.

7. MANUFACTURE RAW MATERIALS TO FINAL STAGES in Canada. Hundreds of millions of dollars are lost annually to the Dominion, and especially to Canadian wage earners, by the exportation of raw materials and semi-manufactured products.

8. USE SCIENCE FOR THE DETERMINATION AND DEVELOPMENT OF NATURAL RESOURCES. Industrial research will reveal new wealth, improve industrial processes, and help to relieve our economic dependence upon outside sources for fuel, iron, and other essentials.

9. MAKE QUALITY THE HALL-MARK OF CANADIAN PRODUCTS. In return for public support of the home market Canadian manufacturers should provide products that compare favorably with imported goods and Canadian workers should recognize good workmanship and maximum production as their standards.

10. BE FAIR TO CAPITAL. Canadian money should be encouraged to invest at home, and foreign capital attracted to promote Canadian industrial expansion.

These Commandments have been so well received that twice the initial order has been exhausted. A revised edition in leaflet form to fit a No. 8 envelope has been printed upon request, and copies may be secured free of charge from the Editorial Department of the Association, Royal Bank Building, Toronto.



An Opportunity to Interest Thousands

A vast crowd of people filling and overflowing the big grand stand at the Calgary Industrial Exhibition. Manufacturers would do well to give careful consideration to the more extensive display of their goods at such exhibitions and fairs

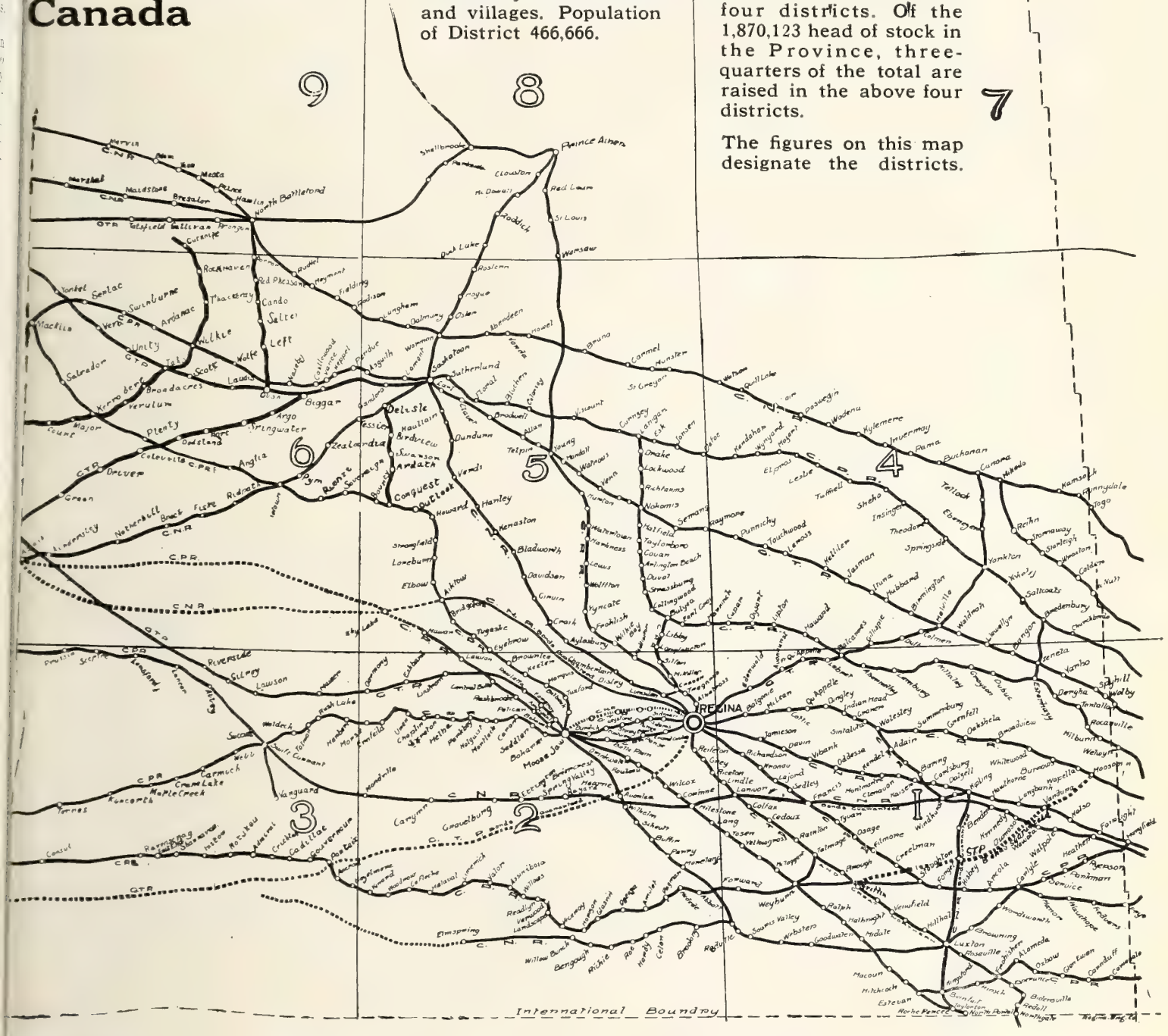
REGINA
Saskatchewan
Canada

1920

Regina serves 2,255 miles of Railway and 250 towns and villages. Population of District 466,666.

In districts Nos. 1, 2, 4 and 5 are two-thirds of the population of the Province, and over two-thirds of the grain of the Province is raised in these four districts. Of the 1,870,123 head of stock in the Province, three-quarters of the total are raised in the above four districts.

The figures on this map designate the districts.



REGINA, the capital city of Saskatchewan is situated on the main line of the Canadian Pacific Railway, Grand Trunk Pacific Railway and Canadian National Railway. It is the principal city between Winnipeg and Calgary, lying 357 miles west of Winnipeg and 483 miles east of Calgary.

REGINA is the largest distributing centre of Western Canada and, as a distributor of farm implements, the greatest in the world, business in this line in one year having reached a total of over $25,000,000.

REGINA is the distributing centre, the commercial centre and the educational centre of this part of Western Canada. Building construction already arranged for, in 1920, amounts to $4,500,000. Every lot in the wholesale area is served with railway tracks; a large portion of the area is still available for building purposes and may be obtained from the City.

For further information apply to L. T. McDONALD, Board of Trade, Regina or Commissioner L. A. THORNTON, City Hall, Regina

New Building Planned

North West Biscuit Company, of Edmonton, Will Increase Its Capacity Largely

The North West Biscuit Company, Edmonton, have had plans prepared for a new building to be erected in the northern section of the city near the Edmonton Metal Works. The company are reported to be finding their present building cramped for space and the idea is now to put up a building which will include all the best equipment available for biscuit-making and be so arranged as to admit of enlargement as required. During the short time they have been in business the North West Biscuit Co. have made rapid progress, and their products are to be found as far west as Prince Rupert.

Locate in Cobourg

The Langslow, Fowler Company, of Rochester, are to Establish Canadian Subsidiary

Ratepayers of Cobourg have passed favorably upon a by-law, under the terms of which a loan of $50,000 will be made to the Langslow, Fowler Co., of Rochester, N.Y., to assist in the establishment of a branch factory. The company is occupied in the manufacture of household and school furniture, and employs in its Rochester plant, when at capacity, close to 600 hands, principally men; cuts and converts into furniture (in 1920) approximately five million feet of lumber, largely hardwoods, and will handle a volume of business in 1920 closely approximating $2,000,000 worth.

The new Canadian company, which will be called Langslow Limited, will occupy the premises formerly owned by the Crossen Car Works. They will manufacture household, school and office furniture, and other wood and steel products. The authorized capital is to be $300,000, and $200,000 will be paid in at the time of beginning operations, which will probably be in October next. The first year will probably see the employment of 100 hands, including both men and women, and expansion from that point will no doubt be rapid.

The controlling interest in the Canadian company will be owned by the Rochester company, and the officers will probably be: President, Stratton C. Langslow; vice-president and managing director, H. R. Langslow; treasurer, Paul Knox; secretary, Raymond C. Van Doorn, all of Rochester.

Acadia Sugar Co.

New Bond Issue of Two Million Dollars Being Put Out by This Company

An issue of $2,000,000 of 7 per cent. first mortgage serial gold bonds is being made by the Acadia Sugar Refining Co., Limited, Halifax. The company have been in operation since 1893. The refinery is situated at Halifax, the property comprising 170 acres, with a water frontage of 1,465 feet. The bonds have been offered at par, with a bonus of 10 per cent. of common stock.

Canadian Consolidated Rubber

Sales of the Company's Products Heaviest in History of the Consolidation

Sales of the various products of the Canadian Consolidated Rubber Co., Limited, in 1919 amounted to $22,162,977, being the largest in the history of the company. After all deductions, including depreciation of $562,300, bond and other interest and dividends on the preferred stock, there remained applicable to the common stock a balance of $1,541,512, equal to almost 55 per cent. on the stock outstanding.

The Canadian Consolidated Felt Co., Limited, subsidiary of the Rubber Co., had sales of $1,234,029, as compared with $1,155,192 in 1918, and $763,481 in 1917. Net profits amounted to $71,977, as against $69,804 in 1918. The balance at credit of profit and loss now amounts to $321,916 and if business continues as favorable in 1920, the directors may be in a position to consider dividends either before the end of 1920 or early next year.

New Toronto Industry

The Arco Company, of Cleveland, Ohio, Are Establishing a Canadian Plant

The Arco Company of Cleveland, Ohio, have secured incorporation in Canada under the name of the Arco Company, Limited, with Canadian capital interested. They have taken a lease of one of the buildings which formerly comprised the gaol group on Strachan Ave., Toronto. For the present, they propose to confine their activities to the manufacture of roofing paints and roofing cements, as they have already built up a considerable trade in these items in Canada. As soon as conditions become more normal, they intend to go into the business more extensively, and undoubtedly will erect a plant somewhere in Canada for the manufacture of paints, varnishes and enamels.

They anticipate beginning manufacture within a month or so, and at the outset will employ only a few men, probably not more than five or six, as the manufacture of their product is a machine proposition. Eventually, they will require the services of from 50 to 100 men skilled in the manufacture of their lines.

Price, Bros & Co.

Last Year's Showing by this Company Was Particularly Satisfactory

Profits of Price Bros. & Co., Limited, for the year ended February 28, amounted to $2,055,782, an increase of $561,821 over the previous year's showing. After the payment of bond and note interest charges, there remained a balance of $1,621,806, against $1,053,984 in 1919.

Shareholders participated in the prosperity of the company during the year to the extent of $690,684, in the form of dividends and bonus, compare with $400,000 in the two former periods. An employees' pension fund was also inaugurated during the period, the sum of $150,000 being set aside out of earnings for this purpose. In addition to the advantages shareholders received, a special distribution of $1,540,000 out of the surplus earnings of the company accumulated prior to the first of January, 1917. After all deductions there remained a surplus in profit and loss account at the end of the year amounting to $2,115,346, compared with $2,874,234 in 1918, and $2,220,239 at the end of the preceding year.

Fine Color Printing

Rous & Mann, Limited, designers and printers, Toronto, send out a remarkable example of four-color printing as an indication of the ability of their organization to do high-class work. It is a reproduction of a painting by Herbert S. Palmer, A.R.C.A., one of Canada's distinguished young painters of animal and rural subjects. The work has been done so effectively that the result is an exact facsimile of the original, with all its subtle delicacy and fine technique. Messrs. Rous & Mann point out that there are numerous ways in which color printing may be utilized in business publicity, and express their willingness to discuss proposals for such work with those interested.

Canada's Industrial Congress

A tour of Alberta and British Columbia under the direction of THE ALBERTA INDUSTRIAL DEVELOPMENT ASSOCIATION and in conjunction with the tour of the Canadian Manufacturers Association.

Medicine Hat	***June 2***
Lethbridge	***June 2***
Calgary	***June 3***
Edmonton	***June 4-5***
Vancouver	***June 7***
Victoria	***June 10***

A Prairie-Pacific tour with addresses in the various cities by authorities on the resources of the West. An invitation to gather first-hand information on the industrial opportunities of Western Canada.

For further information write BRIGADIER-GENERAL H. F. McDONALD, C.M.G., D.S.O.
Congress General Manager, 400 Lougheed Building, Calgary, Alberta.



FOR SALE

Situated in City of Peterborough. Site about nine acres. Building is modern, heavy brick and steel construction, with saw-tooth roof, containing about 35,000 square feet. Served with water, sewers, electric power, railway siding, etc.

For further particulars apply

HOME SMITH AND COMPANY

14 KING STREET EAST **TORONTO, ONT.**

Steamship Sailings

Proposed Sailings from Montreal Which Are Subject to Change Without Notice

To Liverpool.

*Victorian	C.P.O.S. Line	Ab't May 7
Corsican	C.P.O.S. Line	Ab't May 8
Canadian Seigneur	Can. Govt. Mer. Marine, Ltd.	Ab't May 12
*Empress of France	C.P.O.S. Line	Ab't May 14
Melita	C.P.O.S. Line	Ab't May 15
Dominion	White Star-Dominion Line	Ab't May 15
Megantic	White Star-Dominion Line	Ab't May 22
Canadian Ranger	Can. Govt. Mer. Marine, Ltd.	Ab't May 23

*Sails from Quebec.

To London.

Verentia	Cunard Line	Ab't May 8
Scotian	C.P.O.S.-Furness Line (C.P.O.S.)	Ab't May 9
Lexington	C.P.O.S.-Furness Line (Furness)	Ab't May 13
Canadian Trapper	Can. Govt. Mer. Marine, Ltd.	Ab't May 14
Cornish Point	C.P.O.S.-Furness Lines (Furness)	Ab't May 19
Venusia	Cunard Line	Ab't May 26

To Antwerp.

Challenger	Red Star Line	Ab't May 8
Aledo	Red Star Line	Ab't May 14
Grampian	C.P.O.S.-Furness Line (C.P.O.S.)	Ab't May 21

To Glasgow.

Saturnia	Anchor-Donaldson Line	Ab't May 8
Sicilian	C.P.O.S. Line	Ab't May 19
Canadian Aviator	Can. Govt. Mer. Marine, Ltd.	Ab't May 21
Cassandra	Anchor-Donaldson Line	Ab't May 29

To Avonmouth Dock (Bristol).

Turcoman	Dominion Line	Ab't May 15
A Steamer	Cunard Line	Ab't May 15
A Steamer	C.P.O.S. Line	Ab't May 25

To Norwegian Ports (Bergen, Stavanger, Christiania).

Drammensfjord..Norwegian Amer. Line (C.P.O.S., Agents) Ab't June 5

To Manchester.

Manchester Hero	Manchester Liners	Ab't May 12
Man. Corporation	Manchester Liners	Ab't May 22

To Hull.

Rapidam	Furness Line	Ab't May 8
Mendip Range	Furness Line	Ab't May 15
Maplemore	Furness Line	Ab't May 22

To Gothenberg.

Gunborg..Swedish American Line (Furness, Withy, Ltd., Agents) Ab't May 7

To Leith.

Cairngowan	Thomson Line	Ab't May 8
Cairndhu	Thomson Line	Ab't May 15

To Belfast.

Melmore Head..Head Line Ab't May 10

To Dublin.

Carrigan Head..Head Line Ab't May 10

To Havre.

Kamarima..Fracanda Line Ab't May 7

To Bordeaux.

Lord Dufferin..Fracanda Line Ab't May 9

To St. Nazaire.

Cape Corso..Marine Navigation Co. Ab't May 15

To Montevideo, Buenos Aires and Rosario.

A Steamer..Houston Lines Ab't May 20

To South Africa (Cape Town, Port Elizabeth, East London, Durban and Delagoa Bay).

A Steamer..Elder-Dempster Line..Ab't May 15

To West Africa (Dakar, Sierra Leone, Accra, Seccondi, etc.).

Melville..Elder-Dempster Line..Ab't May 27

To Australasian Ports (Melbourne, Sydney, Auckland, Wellington and Dunedin).

To Rio de Janeiro (Brazil), Montevideo and Buenos Aires.

Canadian Planter..Can. Govt. Mer. Marine, Ltd..Ab't May 17

To Barbadoes, Trinidad and Demerara.

Canadian Volunteer	Can. Govt. Mer. Marine, Ltd.	Ab't May 14
Canadian Trooper	Can. Govt. Mer. Marine, Ltd.	Ab't May 28
*Chaleur	Royal Mail Steam Packet Co.	Ab't May 30

*Sails from Halifax.

To Kingston (Jamaica), and Havana (Cuba).

Canadian Beaver..Can. Govt. Mer. Marine, Ltd..Ab't May 14

To St. John's, Nfld.

Canadian Settler	Can. Govt. Mer. Marine, Ltd.	Ab't May 8
Canadian Minet	Can. Govt. Mer. Marine, Ltd.	Ab't May 25

POSITION WANTED

A young married man, with a thorough knowledge of all lines of Customs work, requires responsible position by June 1st. Fully capable of taking charge of department. Would move anywhere in Canada if steady position were provided. References furnished. Box 250, INDUSTRIAL CANADA.

MEXICAN REPRESENTATIVE

(Returned soldier) locating in Mexico, wishes to represent export or import firm on commission; speaks Spanish. Best references. Address communications to Tracy W. Holland. Tampico, Mexico.

BOX PRINTING MACHINE WANTED

Box printing machine wanted. Must be in good condition and available for immediate delivery. State all particulars and price. Canadian Box & Shook Mills, Ltd., Sherbrooke, Que.

Death of Frank Robson

Vice-President of the Robson Leather Co., Oshawa, Passes Away Quite Suddenly

The death occurred suddenly at Oshawa, on May 2, of Frank Robson, vice-president of the Robson Leather Co., Limited. Mr. Robson was the eldest son of the late James Robson, founder of the industry, and spent his life in the tannery and leather business in Oshawa. For years this business was conducted under the name of James Robson & Sons. Later it was enlarged and reorganized under its present name, being managed by Mr. Robson and his surviving brother, Charles. The late Mr. Robson was a member of the C.M.A.

Thomas Waterhouse Dead

Ingersoll Manufacturer, with Long Experience in Woollen Industry, Passes Away

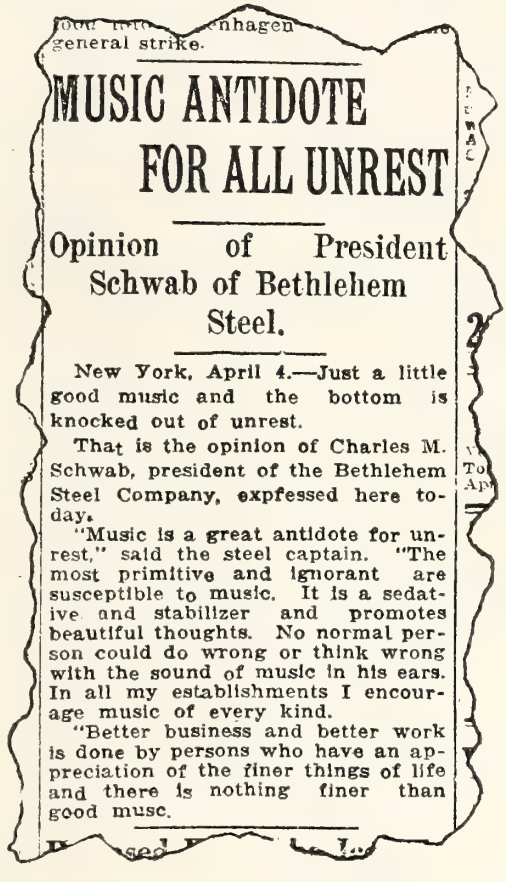
One of the Association's members in Ingersoll, Thomas Waterhouse, president of the Thomas Waterhouse Knitting Co., passed away in that town on April 5, after an illness extending over two years. The late Mr. Waterhouse was born in Puthey, Yorkshire, England, and came to Canada when a small boy. He was engaged in manufacturing for forty years, having conducted woollen mills at Palmerston until twenty-two years ago, when he went to Ingersoll. The woollen mill there was for some time conducted by Waterhouse and Bradbury. Fourteen years ago the present Thomas Waterhouse Knitting Company was organized, which has grown rapidly ever since.

Doubling Size of Plant

Holmes Foundry Co., Sarnia, Are Putting Up Big Addition to Their Plant

The Holmes Foundry Co., Limited, are doubling the size of their plant at Sarnia by adding a structure 96 x 200 feet. The completed plant is to be delivered July 1, 1920, while partial operations were commenced on May 3. The product will be gray iron automobile castings, principally cylinders and heads. Approximately 225 men will be employed, and the investment is about $650,000. The company are also putting in the footings, foundations and underground work for half of an additional unit, 200 x 96 feet, and this unit will eventually be 405 x 96 feet. The Holmes Foundry Co. operate three plants in Port Huron in addition to the Sarnia plant.

A Message to Employers from Charles M. Schwab



...enhagen general strike.

MUSIC ANTIDOTE FOR ALL UNREST

Opinion of President Schwab of Bethlehem Steel.

New York, April 4.—Just a little good music and the bottom is knocked out of unrest.

That is the opinion of Charles M. Schwab, president of the Bethlehem Steel Company, expfessed here today.

"Music is a great antidote for unrest," said the steel captain. "The most primitive and ignorant are susceptible to music. It is a sedative and stabilizer and promotes beautiful thoughts. No normal person could do wrong or think wrong with the sound of music in his ears. In all my establishments I encourage music of every kind.

"Better business and better work is done by persons who have an appreciation of the finer things of life and there is nothing finer than good musc.

Mail and Empire, Toronto
April 5, 1920

Write us stating the number of employees you have and the kind of music you are interested in—factory choruses, bands or orchestras. We shall gladly send you full particulars regarding the best method of introducing music into your plant

THE R.S. WILLIAMS & SONS CO. LIMITED.

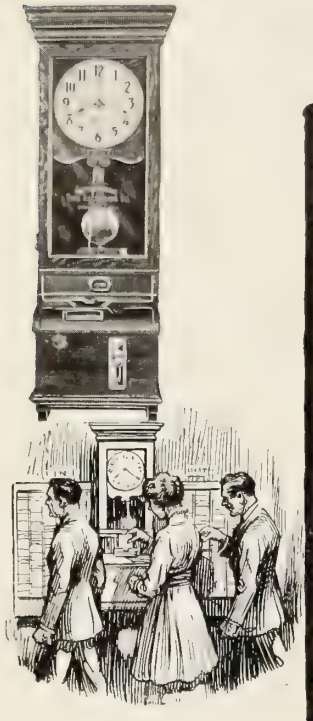
MUSICAL INSTRUMENTS OF QUALITY

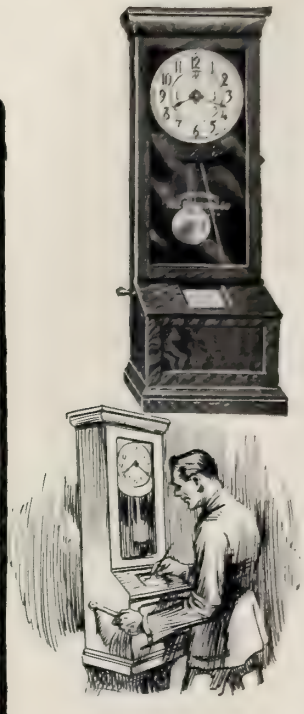
"Canada's Home of Music"

Winnipeg Calgary Montreal Ottawa Hamilton Toronto

Established 1849







Everybody is Talking About Increased Production

—because it is the only practical solution of the high-outlay problem now confronting manufacturers. They can stand the cost pressure only if their productiveness keeps the pace

INTERNATIONAL TIME AND COST RECORDERS

give a full and accurate insight into the progress of every piece of work in your plant. They speed up production by eliminating time waste, improving superintendence, increasing discipline, promoting harmony—by giving you a quick sure grasp of all timekeeping and costkeeping details.

Write us for the Full Story—NOW

International Business Machines Company Limited
(TIME RECORDER DIVISION)

FRANK E. MUTTON, Vice-President and General Manager
Head Office and Factory: Campbell Ave., TORONTO, Ont.

Branches in all Principal Cities

(Also makers of Holerith Electric Tabulators and Dayton Computing Scales)







DISSATISFIED MEN



Next to the apple of the Garden of Eden, the oldest source of dissatisfaction is mistakes in the pay envelope. Unexpected dockages for lateness or lost time, mistakes in calculation of pay, etc., certainly get a man up in the air. Occasionally, these mistakes are unavoidable with some of the antiquated time-keeping systems in use—the only wonder is, there aren't more of them.

SATISFIED MEN

Let a man make his own time records. Let him see the actual printed figures, unchangeable, legible, unmistakable, and you eliminate one big source of trouble. Every man knows then that his time record is absolutely right—no "human element" has entered into it—a machine did it.

We make Time Recorders, Master Clocks, Secondary Clocks, Program Devices, some electrically operated, others spring-driven. Let us send you particulars.



International Business Machines Limited

FRANK E. MUTTON
Vice-Pres. and Gen. Mgr.

Head Office and Factory
Campbell Ave., TORONTO

Branches in All
Principal Cities

(Also makers of Dayton Computing Scales and Hollerith Electric Tabulators)

Tariff Department News

New Australian Tariff

Information Now Available in Tariff Department Regarding New Rates of Duty

The Tariff Department has particulars of the new Customs tariff of Australia, which became effective, provisionally, on the 25th March last; and it is now in a position to answer enquiries regarding the new rates of duty on specific products.

Paper Duty Free

New United States Enactment Lets in All Paper Valued Under Eight Cents a Pound

On January 31, 1920, a bill was introduced in Congress, which after amendment was duly passed and became law on April 24, permitting paper valued under eight cents per pound to enter the United States duty free.

Export of Cheese

British Government Decides Not to Purchase Any More Imported Cheese

The Canadian Trade Commission, Ottawa, have received the following cable from the Overseas Branch, Department of Trade and Commerce of Canada, in regard to the importation of cheese into Great Britain:—

"April 30.—Government announces it has been decided not to make any further purchases of imported cheese. Orders providing for requisition of private imports and fixing maximum wholesale prices will be removed at an early date. Order fixing maximum retail price will, however, remain in force for the time being."

Termination of French Treaty

Notice Given and Change Will Take Effect on the 18th Day of June Next

The required three months' notice has been given for the termination of the convention respecting commercial relations between Canada and France, and the change will take effect on the 19th day of June, 1920. Thereafter, it appears that importations into Canada from France will be subject to the rates of duty under the general tariff, and importations into France from Canada, which, under the convention, were entitled to the benefit of the French minimum tariff, will be subject to the maximum tariff rates.

Board of Customs Decisions

Various Rulings Made as to the Duty Applicable on a Number of Commodities

Pratt and Whitney standard measuring machine, per illustration, declared to be properly dutiable under tariff item 657, at 25 per cent. and 7 per cent. war tax.

Incubators and brooders declared to be dutiable according to material.

Glass rolling pins declared to be dutiable under tariff item 510, at 20 per cent. plus 7½ per cent. war tax.

Cassava flour processed in any manner for use as glue held to be a vegetable glue and declared to be dutiable under tariff item 232, at 27½ per cent. plus 7½ per cent. war tax.

Stuffed olives for the manufacture of pickles declared to be dutiable under tariff item 749, at 20 per cent. plus 7½ per cent. war tax.

Declared that dictating machines, such as the "Ediphone" and the "Dictaphone," and cylinders for same are not subject to war excise tax.

Upson wallboard declared to be dutiable under tariff item 199, as a manufacture of paper, at 35 per cent. plus 7½ per cent. war tax.

Departmental Rulings.

Culti-packers or Trac-o-packers, per illustrations, ruled to be dutiable under tariff item 448, at the rate of 20 per cent.

Sheaves with patent roller bearings or bushings, when imported to be incorporated into pulley blocks for the equipment of ships and vessels, are now manufactured in Canada, and are, therefore, not entitled to entry under tariff item 470.

Shoes, per samples submitted, from Endicott & Johnson, New York, having the soles both sewn and nailed, ruled to be dutiable under tariff item 611 (*a*) at the rate of 30 per cent.

Departmental decision on Christmas stockings, as contained in Appraisers' Bulletin No. 929, is cancelled and the following substituted therefor:—"Christmas stockings are dutiable at the rate applying to component materials of chief value therein, and when imported from Great Britain are entitled to preferential treatment when not less than one-quarter of the cost of production for export has been produced through the industry of one of more British countries."

Marbles for use in lithographic work ruled to be dutiable according to material.

Rotary cloth press, of a class or kind not made in Canada, ruled to be dutiable under tariff item 468 at the rate of 10 per cent. plus the war tariff of 7½ per cent.

Polysulphide ruled to be dutiable under tariff item 711 at the rate of 17 per cent. plus the war tariff of 7½ per cent.

Dried peat ruled to be dutiable under tariff item 539 as free of duty, but subject to the war tariff of 7½ per cent.

Steel balls for the manufacture of bearings for binders ruled to be dutiable under tariff item 491 at the rate of 10 per cent.

Refined cotton seed foots, as per sample, ruled to be dutiable under tariff item 280 as free of duty, but subject to the war tariff of 7½ per cent.

Potato graders ruled to be dutiable under tariff item 448 at the rate of 20 per cent.

Needles set in strips of metal, of a class or kind not made in Canada, being part of a weaving machine, ruled to be dutiable under tariff item 468 at the rate of 10 per cent. plus the war tariff of 7½ per cent.

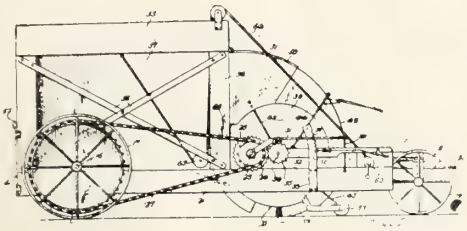
New Canadian Patents

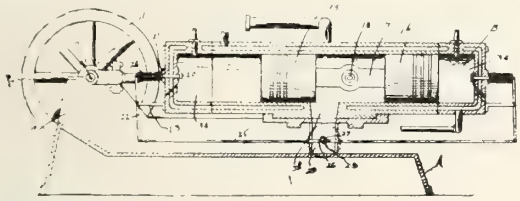
Some Interesting Devices That Have Recently Been Patented in Canada

The following is a list of Canadian patents recently issued through the agency of Messrs. Ridout & Maybee, 156 Yonge Street, Toronto, from whom further particulars may be obtained: Kilgour Bros., paper containers; George A. Helson, street cleaning apparatus; F. S. Harrington, pick; Philip T. Jackson, cooking apparatus; E. Beaumont Jarvis, metal framing; Evan O. Williams, reinforced concrete ships, barges, floating structures and the like; Walter Willmott, stamping book covers and the like; Wm. J. Gives, wrenches; Justus M. Silliman, demountable metal tires for vehicle wheels; Jabez Muskett, rubber-covered rollers; F. W. Shenstone, keyboards for musical instruments; Schoichi Tamura, automatic bottle-filling machine; Frank Perry, incandescent gas lighting; Dr. Wm. C. Toll, Tonsillectome; A. Brokenshire, tire carrier for motor cars; G. Beechey, garden barrows and cultivators; James Nevin, artificial leg.

PATENTS FOR SALE

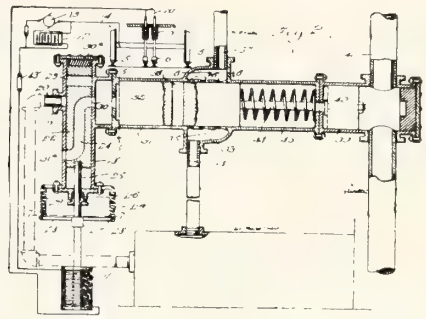
STREET CLEANING MACHINE, consisting of a novel construction, yet simple and durable, which would make a practical machine for use in cleaning city streets. Canadian and U.S. patents can be had at a reasonable price by applying to M. L. Osborne, Waukomis, Okla., U.S.A.

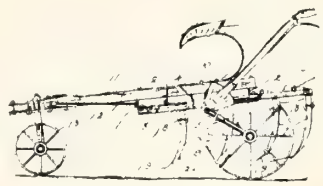




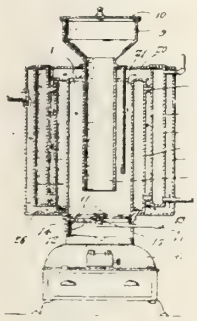
INTERNAL-COMBUSTION ENGINE, which provides a simple and efficient means for actuating the control valves for regulating the inlet and exhaust of the gases to and from the explosion cylinders. Canadian and U.S. patents for sale. Full particulars can be had from R. M. Day, Alcester, S. Dak., U.S.A.

TRAIN CONTROL SYSTEM. This invention relates to a train control system which has many features, and should be looked into by railroad companies throughout Canada and U.S. Patents have been taken out in Canada, Mexico, France, Great Britain and U.S. These are all for sale outright or on a royalty basis. For full particulars write H. Carlisle, P.O. Box 68, Lessburg, N. J., U. S. A.



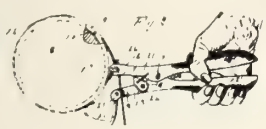


QUACK GRASS DIGGER, which consists of a novel device and combination of devices which will be found extremely simple and highly efficient in Quack Grass Digging. Canadian and U. S. patents for sale. Write Frank H. Klose, care Klose Mfg. Co., St. James, Minn., U. S. A.

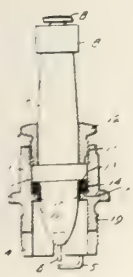


STOVE having for its object to provide a means for improving the efficient water heating pipes of stoves. Full particulars can be had from S. D. Blackburn, 104 Jenkins Avenue, Lansdale, Pa., U.S.A., who has Canadian and U.S. patents for sale.

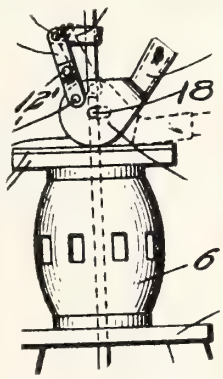
COMPRESSING TOOL FOR PISTON RINGS, whereby rings are contracted to a reduced diameter so that they do not project beyond the piston while the latter may be readily passed into the cylinder. Write H. O. Ewing, Middleport, Ohio, U. S. A., for full particulars and copy of his Canadian and U. S. patents, which are for sale.

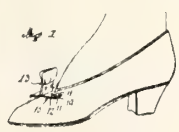


SPARK PLUG which has many features of advantage over the ordinary plug, and owing to its simple and efficient construction, should become a wide seller, if properly placed on the market. Write R. H. Duncan, 159 Hendrie Ave., Detroit, Mich., U. S. A., for full particulars, as Canadian and U. S. patents are for sale.



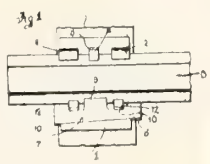
CLAMPING DEVICE for securing work, especially wheels to a stand. It may be operated quickly and will dispense with the present lock and screw device commonly used. Canadian and U.S. patents for sale by B. J. Hudson, Box No. 93, Wilsey, Kans., U. S. A.

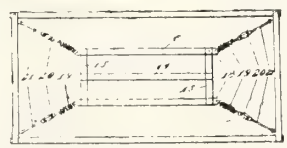




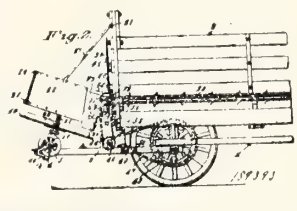
DETACHABLE BOW SUPPORT FOR SHOES, providing a very simple means for detachably supporting a bow upon a slipper, whereby a new bow may be readily attached when the former one has become soiled. Full particulars can be had from Le Roy F. Jones, P.O. Box 50, Waiakos Maui, Hawaii, who has Canadian and United States patents for sale.

TIE PLATE, to be associated with a rail tie formed of wood so as to increase the life of the tie, the said plate being equipped with a novel means of securing the rail to the plate. Canadian and U. S. patents for sale by J. Wedgeworth, Sarapta, La., U. S. A.



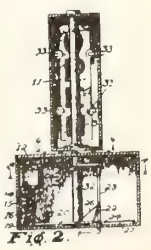


SPRING FOR BEDS. This invention relates to a novel means of making and fitting springs into bed construction. Full particulars can be had from A. E. Powell, Box 49, Caron, Sask, Can., who has Canadian and U. S. patents for sale.



STRAW SPREADER, which is used in connection with threshers and will be found of great advantage. It is simple in construction and efficient in operation. Full particulars can be had from F. C. Mares, Dwight, Nebr., U. S. A. Canadian and U. S. patents for sale.

AUTOMATIC TRAFFIC REGULATOR, which automatically operates, alternately directing the movement of pedestrians and vehicles in cross street intersections. Canadian and U. S. patents are for sale. Write E. A. Pound, 1114 2nd Avenue, Venice, Cal., U. S. A.

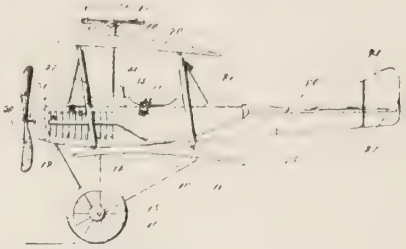


HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

PATENTS FOR SALE



KNITTING NEEDLE, consisting of a particular way of forming the needle, having much advantage over the ordinary construction and which can be easily and cheaply manufactured. Canadian and U. S. patents are for sale and full particulars can be had from Mary E. Ross, 992 Rose St., Baker, Ore., U. S. A.

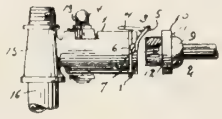


AEROPLANE, which is provided with a propeller arranged over the apparatus which may be used as a helicopter at any desired time and may be folded and disconnected with little delay. Full particulars can be had from D. Pecher, Princeton, B. C., Can.

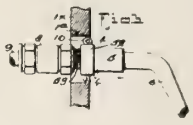
COLLAPSIBLE BED, providing a single article of furniture which serves either as a sofa, lounge, bed or couch of simple, strong and durable design. Canadian and U. S. patents for sale. Full particulars can be had from D. Balyk, 535 Fallow Ave., Medicine Hat, Alta., Can.

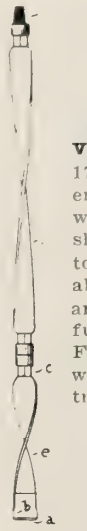


PIPE OR HOSE COUPLING whereby a device of safety and also security to prevent the disconnecting of gas tubes or hose from the stop cocks on radiators or other gas, liquid or air appliances. The device is such that the safety handle must be shut off entirely before a disconnection can be made. The nipple ends are secured to the metal, porcelain or wood, thereby overcoming the great trouble of breakable rubber ends. For full particulars, write Chas. Steiger, 4152 Federal St., Camden, N. J., U. S. A.

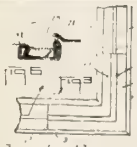


CRANK FOR GASOLINE ENGINES. This invention is one which should be looked into by automobile manufacturers throughout Canada and U. S. The invention is one of merit and should find a good market if sold at a reasonable price and properly advertised. Accessory manufacturers should be interested. Write A. M. Ewart, 300 6th St., Barberton, Ohio, U. S. A.

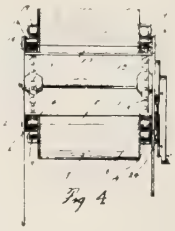




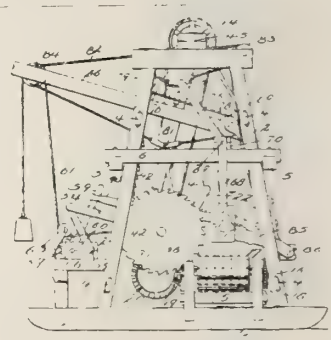
WELL DRILLING DEVICE. Canadian patent, No. 172318, is for sale and covers a novel construction in well drilling devices, which should be carefully looked into, as the same has considerable merit, if properly handled and placed on the market. For full particulars, write James Ferrier, Curzon St., Toowoomba, Queensland, Australia.



SCREEN FOR WINDOWS, in which the wire fabric can be easily and quickly renewed without the services of a skilled mechanic. The stiles and rails are connected at the corners by an invisible connection. Canadian and U.S. patents for sale. Write Wm. Steger, Linden Heights, Ohio, U.S.A.

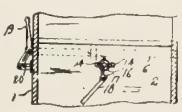


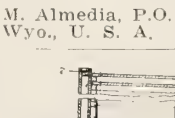
FIRE ESCAPE, providing a novel means whereby persons may be lowered on the outside of the building. It further provides a particular means of allowing the lowering of such fire escapes. Canadian and U. S. patents for sale. Write D. H. Olson, 2400 12th Ave. South, Minneapolis, Minn., U. S. A.



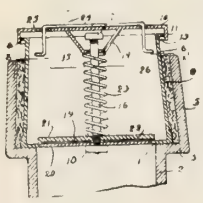
WOOD SAWING MACHINE whereby the operations to be performed may be accomplished rapidly, with facility and safety. The saw can be attached for sawing blocks or pieces any desired length, and provides a means for clamping or holding the log while being sawed. Canada and U. S. patents for sale. Write Lars G. Gustafson, Ethel, Wash. U. S. A.

ANIMAL RELEASING DEVICE, consisting of a novel means whereby a number of animals confined in stalls in a barn may be simultaneously released. The device may be cheaply installed and will operate with a maximum efficiency. Full particulars can be had from G. Zohner, Forres, Sask., Can. Canadian and U. S. patents for sale.





LOCKING DEVICE FOR BAGS, whereby they can be effectively locked by a device which is easily applied, reliable in use, of highly simplified construction and cheap to manufacture. Canadian and U. S. patents for sale by J. M. Almedia, P.O. Box 642, Rock Springs, Wyo., U. S. A.



CLEAN - OUT PLUG FOR SEWERS, providing a means whereby the plug consisting of a collar and a valve which may be engaged in a pipe for cleaning the same out. Canadian and U. S. patents for sale. For full particulars, write Chas. E. Gate, 308 Maryland St., Winnipeg, Manitoba, Can.

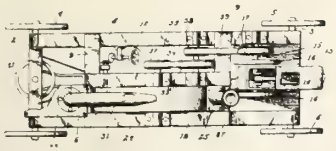
REFRIGERATOR which provides pure, dry, cold air for perfect refrigeration of a display counter. Descriptive circular can be had by writing to Mr. C. A. Ketterer, 215 Baugh Ave., East St. Louis, Mo., U. S. A. Canadian and U. S. patents for sale.



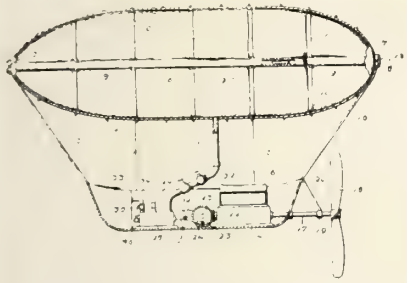
BOBBITTING MANDREL. This invention has many merits of advantage and if properly shown to the manufacturers throughout Canada and U. S. i should be a popular seller. Canadian and U. S. patents can be had outright or on a royalty basis from J. M. Mark, 706 J. Adams St., Oregon City, Ore., U. S. A.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

PATENTS FOR SALE



INSECT DESTROYING MACHINE, providing a means for destroying insects, which can also be used as a vacuum cleaner, driven by a suitable motor and adapted to be moved from room to room. The simple construction of this invention should be looked into by manufacturers looking for an invention of merit. Canadian and U. S. patents for sale. Write James W. Lemon, Box 43, Hardy, Ark., U. S. A.

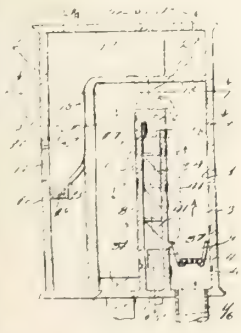


AIRSHIP, comprising a balloon portion having a car supported therefrom. A means for inflating or deflating the balloon to control the ascending or descending of the craft. Copy of Canadian and U. S. patents can be had from J. F. O'Grady, Sisseton, S. Dak., U. S. A.



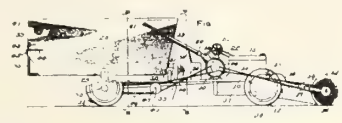
ELECTRIC LIGHT SWITCH OPERATOR, through the medium of which an electric light switch may be operated both to turn on and off the light by pulling downwardly upon a depending pull cord or handle. Full particulars can be had from E. H. Shute, 2046 Cortes St., Chicago, Ill., U. S. A. Canadian and U. S. patents for sale.

HEATER, adapted for heating railway stations, country schools, offices and various other buildings. The invention can be easily constructed and is adapted to burn any kind of fuel. Canadian and U. S. patents for sale. Write Robt. De Polo, Connellsville, Pa., U.S.A.

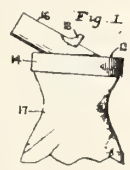




LOCKING MEANS FOR DRAFT SILLS OF RAILWAY CARS, which provides a novel construction of wooden railway cars in which the longitudinally extending centre wheels are connected to the draft wheels which carry the draw-bar attachments. For full particulars of this write A. M. Lowry, 8 Kelly St., Fairfield, Me., U. S. A., who has Canadian and U. S. patents for sale.

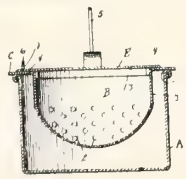


MOTOR STREET CLEANER provides a motor driven device adapted for cleaning streets during the passage of the device thereover, the arrangement being such as to sweep and transfer the sweepings into a dumping receptacle. Canadian and U. S. patents for sale. Full particulars can be had from Andrew Simko, 92 Third St., Passaic, N. J., U. S. A.



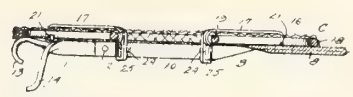
CREAM SEPARATOR ATTACHMENT FOR MILK BOTTLES, by simply placing the attachment on the top of the bottle with the forefinger resting on the finger piece, the thumb and other fingers holding the bottle, the cream, whether thick or thin, flows out rapidly when the bottle is tilted. This attachment can be made at a reasonable cost and a good profit can be had by house to house canvass. Write for full particulars to J. A. Moffatt, 166 North Bay St., Hamilton, Ont., Can., as Canadian and U. S. patents are for sale.

COMBINED VEGETABLE COOKER AND DRAINER, consisting of useful improvements in a kitchen utensil adapted to be employed as a vegetable cooker, steamer and drainer, and in which elements may as desired be employed for mashing vegetables. For full particulars, write Minnie Fournier, Minong, Wis., U. S. A. Canadian and U. S. patents for sale.



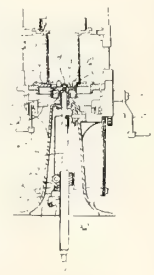


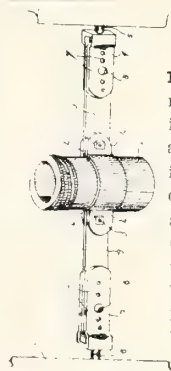
BELT GUIDE AND SHIFTER, consisting of a novel construction for guiding an endless belt, and a means for shifting the belt from the drive pulley to the idler or vice-versa. This invention has considerable merit and particulars should be inquired of from G. M. Eriebel, Balcarres, Sask., Can.



STRAINER, specially designed for straining milk directly into the supply tank of a cream separator. The support is applicable to all makes of separator tanks and may be readily placed in operative relation or removed by simply lifting up by the long end. Canadian and U. S. patents for sale. Write M. J. Ostul, Ghent, Minn., U. S. A.

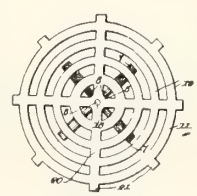
SELF - SHARPENING ADJUSTABLE PACKER HEAD-PLATE which has much advantage and manufacturers in this line should at once write to Mr. Jos. Vogt, care Richmond Pressed Stone Works, Richmond, Minn., U. S. A., for full particulars, as his Canadian and U. S. patent rights are for sale. Full particulars and drawings will be sent on request.





ADJUSTABLE PIPE HANGER, consisting of novel means of clamping around pipes and adjustably holding these in relation to walls and other supporting means at any desired angle. Canadian and U.S. patents for sale. Write W. C. Duke, 1163 E. 13th St., Richmond, Va., U.S.A.

REVOLVING TABLE OVEN This invention has many good features which oven manufacturers should look carefully into. Full particulars can be had from Mary A. Scrimgeour, 376 College Street, Lewiston, Maine, U. S. A., as both Canadian and U. S. patents are for sale, copies and full data will be sent on request.





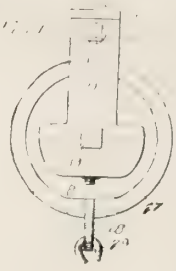
VIOLIN SHOULDER-REST which may be readily secured to a violin or other instrument of that general type and held in proper position by a resiliently-mounted clamping member for readily holding the violin in proper position to the shoulder. Full particulars can be had from John McLay, Box 26, Bellerive, Valleyfield, Que., who has Canadian and U. S. Patents for sale.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

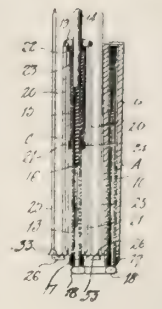
PATENTS FOR SALE

WHEEL RIM and more especially a demountable or detachable rim from the felly of the wheel. The rim supporting automobile tires can be easily and quickly removed to substitute new tires for punctured or damaged ones. Full particulars can be had from E. S. Beeman, Laporte, Indiana, U.S.A. Canadian and U. S. patents for sale.



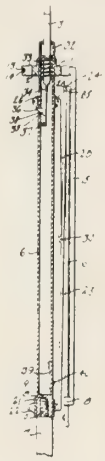


HANGER FOR SWINGS, providing a novel means which is inexpensive and should find an attractive market when properly advertised. Canadian and U. S. patents for sale. Copies and full particulars can be had from Harry J. Volkewein, 317 Fingal St., Pittsburg, Pa., U. S. A.



UMBRELLA which will fold into a length approximately one-half the length of a rib of an ordinary umbrella. Umbrella manufacturers should at once look into this patent, as the invention has considerable merit and commercial possibilities. Full particulars can be had from M. Schock, 310 Cleveland St., Monticello, Indiana, U. S. A., who has Canadian and U. S. patents for sale.

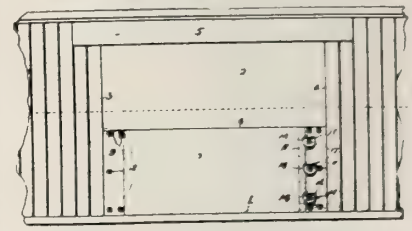
UMBRELLA which has novel features which should make this an attractive seller if properly placed on the market. Full particulars can be had from Thos. Verdugo, 923 Shotwell St., San Francisco, Cal., U. S. A., who has Canadian and U. S. patents for sale.



PATENTS

Trade Marks, Design Patents, Copyrights

Being near the Canadian Patent Office we are able to personally interview examiners, thus often getting broader claims and earlier allowance of your Patent. We have access to all Patent Office Records for making searches and report, and solicit the business of Manufacturers, Engineers and others who realize the advisability of having their Patent Business given PERSONAL ATTENTION by Experts at Ottawa.



GRAIN DOOR CONSTRUCTION which provides a simple and inexpensive construction which will be effective in retaining grain, coal and other light products without leakage from the car while in transit, but it can be easily released to discharge said products when desired. Can. and U. S. patents for sale by W. H. Toomer, Gladstone, Man., Can.

Manufacturers interested in patents should have their names on our Service Dept. mailing list

HAROLD C. SHIPMAN & CO.

PATENTS
TRADE-MARKS. DESIGNS. COPYRIGHTS.

OTTAWA, CANADA

Ask for our Booklet on Patents, "Patent Protection"

Branch Office, Washington, D.C. Associates All Foreign Countries

Their 1920 Calendar

The calendar issued this year by Lockwood, Greene & Co., copy of which has recently been received, shows in attractive form a number of the more important engineering undertakings of the company. Among them are several fine manufacturing plants, including the new works of T. McAvity & Sons, at St. John, N.B. The calendar is in monthly sheets, each with its own illustration.

New Company Publication

Among the latest Canadian manufacturing companies to establish a company publication is Lever Bros., Limited, who started in April a neat 36-page pocket-size magazine, under the name of "Progress Canada." Printed on coated paper, with numerous half-tone illustrations, it makes a tasty little production. The April number is largely devoted to an account of Lord Leverhulme's visit to Canada, though there is much other material of interest to the company and its employees. The publication will undoubtedly contribute to the maintenance of friendly relations between employer and employee.

Nickel Company's Periodical

Under the name of the "Inco," the International Nickel Company have commenced the publication of a monthly periodical intended to promote the interests of the company. It is a well printed little publication and contains much useful information about the company and its products.

ANNOUNCING

DOMINION OXYGEN COMPANY, Ltd.

The Dominion Oxygen Company, Ltd., from its very inception takes high rank among the leaders of Canadian Industry.

Product

Foreseeing an extraordinarily rapid development of Canadian business, it plans a chain of modern plants for the production of atmospheric oxygen of high purity.

Five important industrial centers have already been chosen as locations for as many plants. The building program is actually under way and is being rapidly pushed to completion.

Cylinders

Dominion Oxygen Cylinders will be of the most modern type, designed to carry the maximum quantity of gas with the least possible weight, thus insuring the lowest shipping and handling expense.

Under the comprehensive selling plan of the Company, these cylinders will be loaned to the consumer on liberal terms.

Policy

Broad in its scope, the Dominion Oxygen Company, Ltd., is still broader in its policy. It has planned and is providing a great distributing system which, through a network of centrally located warehouses and distributing stations, will insure Canadian oxygen users of a never-failing and prompt supply of pure oxygen in any quantities.

This service will be extended in all its ramifications as rapidly as new plants are completed.

By inaugurating, with its patrons, a relationship of unusual breadth and liberality, the Dominion Oxygen Company, Ltd., will be a constructive force in promoting the tremendously increased use of the oxy-acetylene process.

A Suggestion

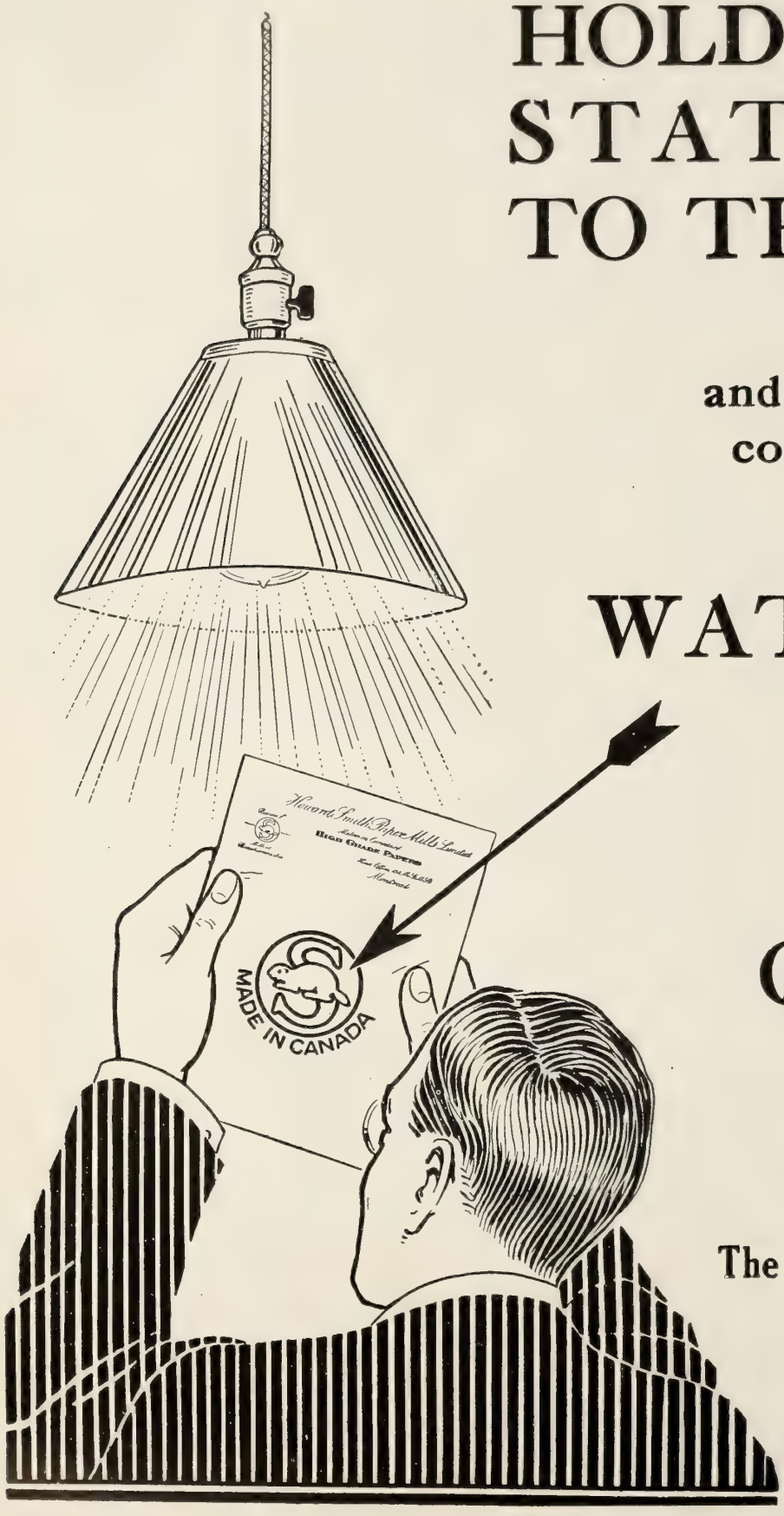
It will be to the advantage of Canadian users of oxygen to write for more detailed information before contracting for their future oxygen requirements.

DOMINION OXYGEN COMPANY, Ltd.

265 Adelaide Street West

Toronto, Canada

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and see that it contains this

WATERMARK

It is your guarantee for

QUALITY

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138 McGill St., MONTREAL

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BEAUHARNOIS, QUE. and
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OFFICE AND FINANCE

The Cost System---a Fundamental Guide to Efficiency

What the Chart is to the Seaman, His Cost System Should be to the Manufacturer — a Source of Light and Leading

By W. L. EDMONDS

KNOWLEDGE of cost in respect to production is destined to become increasingly important in respect to success in the manufacturing industries of the Dominion. Carping critics may say what they will in regard to profits secured, but to the unprejudiced mind it must be apparent, in view of the upward trend in the cost of raw materials, labor and freight rates, that it is only by employing the highest possible measure of efficiency in production that manufacturers can hope to create a surplus sufficient to pay dividends and create reserve accounts of adequate amounts to provide for the eventualities of "rainy days" and for necessary expansion in business.

It naturally follows that the fundamental guide to efficiency is an efficient cost system. A cost system is to the manufacturer what a chart is to the seaman. It enables him to get his bearings and to map out his future course.

Incomplete Cost Systems

Not long ago the travellers of a certain manufacturing concern reported that a competitor was selling an article at twenty-six cents which it cost the former thirty cents to produce. After puzzling over the matter for some time the manager could come to no other conclusion than that the competing firm was selling below actual cost.

"If that is their little game," he finally concluded, "I'll help them to increase their losses, I'll stop manufacturing the article and buy their line instead."

Shortly after coming to this conclusion he consulted a man who was an authority on cost accounting, whom he informed, in reply to a specific question, that his cost of thirty cents on the particular article was made up of labor 10c., material 8c., and overhead 12c. He had to acknowledge, however, that his factory was running on less than half time.

"What would your overhead be if you were running on full time?" he was asked.

"About five cents," he replied.

"Ah, now I see the seat of the trouble," continued the expert. "If your factory was running full time you could produce that article at about twenty-three cents instead of at thirty cents. Your competitor is able to undersell you because he is running his factory full time."

The trouble with this particular firm's system was that, while it furnished an apparently initial record in regard to cost of production, it did not go beyond that point. Had it not been so, the manager would not have found it necessary to call in an outsider to enlighten him as to the source of his difficulty.

There is an old English maxim to the effect that "there is no wrong without a remedy." The office of a cost system is to provide the manager of an industry with data that will serve to assist him in rectifying errors as well as to furnish him with figures upon which to base the selling cost of factory product.

Three Elemental Factors

Into the manufacturing of any article whatsoever there enter, generally speaking, three elemental factors. These are material, labor and expense. It follows, therefore, that a cost system, to be efficient, must enable the management to ascertain, as nearly accurately as possible, the proportion of cost entailed under these three classifications. Furthermore, it should be made to function in such a way that the management is enabled to ascertain month by month the presence of leaks, if any, and the lines which are either profitable or unprofitable.

It is becoming more and more widely and generally recognized in business practice that it is an unwise policy, except in case of actual necessity, for a manufacturer to continue to produce or a merchant to continue to carry in stock a line which is persistently unprofitable. It therefore follows that if a manufacturer is to be in the position where he can from month to month be provided with accurate information in this particular, he must have in operation a system that works out costs in detail and not on a basis that merely strikes an average for the various lines his factory produces. But even though, for policy's sake, it may be wise to continue the manufacture of a subordinate line in which there is either little or no profit, sound business practice demands that the management should be in a position to know the facts regarding each and every line of goods the factory turns out. Otherwise how can it intelligently manage? Without the employment of a cost system that is efficient in this particular detail the manager can scarcely be in a position to determine the lines which require special treatment, either with a view to bringing this or that article out of the unprofitable class or of pushing more vigorously those which are netting the company a larger percentage of profits.

Average vs. Detail Costs

Four or five years ago two manufacturers, whom we may designate A and B, were engaged in a friendly chat regarding their respective business methods. During the conversation A acknowledged that although his factory turned out over two hundred different articles he could not produce figures which would show the profitable or unprofitable character of any one of them. His cost system only provided ways and means of ascertaining the average profit on the total turnover. B, on the other hand, although making about the same number of lines as A, employed a system that enabled him to ascertain the cost of each. "When I find," he explained, "that a certain article is no longer being produced at a profit, and there does not, after a careful investigation has been made, appear to be any possibility of our being able to do so in the future, I cut it out."

B, it will be seen, believed in making money in detail as well as in total. A was satisfied with the latter. From the standpoint of sound business practice there can scarcely be any doubt as to which theory is the preferable.

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Established over 100 Years

Capital Paid Up - - $20,000,000
Rest - - - $20,000,000
Undivided Profits, $1,812,854
Total Assets - $545,304,809

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Head Office: MONTREAL

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CAPITAL PAID UP $7,000,000 RESERVE FUND $7,500,000

PELEG HOWLAND, President

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COLLECTIONS made at all points in Canada and in foreign centres.

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EXCHANGE—Domestic and Foreign Exchange bought and sold.

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Accounts of Merchants and Manufacturers solicited.

HEAD OFFICE - TORONTO

Canadian Mead-Morrison

Unsold Portion of Preferred Stock Issue Has Been on Offer to Canadian Investors

Preferred stock of the Canadian Mead-Morrison Co., Limited, the new Canadian corporation which has taken over the business of M. Beatty & Sons, Limited, Welland, has been on offer through the Montreal financial house of Hanson Bros. The company have issued $600,000 of 7 per cent. cumulative redeemable sinking fund preferred shares, and 8,500 common shares, of no par value. Hanson Bros. offered the unsold portion of the preferred issue at par and accrued interest, with bonus of forty per cent. of common. As the company have practically no bonded indebtedness, the preferred stock is nearly equivalent to a first mortgage.

Provincial Paper

Reorganization of the Company Has Been Effected and Shares Will be Exchanged

A reorganization of the Provincial Paper Mills Co., Limited, has taken place, a new company, Provincial Pulp and Paper Mills, Limited, having been formed to take over the old company. Through the reorganization, holders of common stock of the latter are given a bonus of 50 per cent. of their holdings in the new company, while preferred stock is exchanged share for share. The Port Arthur Pulp & Paper Co., which was a subsidiary of the old company, is taken over and forms part of the new organization. The some officers and directors are in control.

Consolidated Smelters

Sales of Smelter Product, Ore and Other Materials Amounted to $9,761,000

Despite labor troubles and unsettled markets, sales by the Consolidated Mining & Smelting Co. of Canada, Limited, during the fifteen months ended December 31, 1919, amounted to $9,761,000, or about the same as during the twelve months ended September 30, 1918. Total receipts in the fifteen-month period amounted to $13,002,498. To meet dividends at the regular rate of ten per cent. per annum, it was necessary to draw on reserves to the extent of $489,789, bringing the balance down from $2,148,122 to $1,658,333. Referring to this phase of the situation, the president, James J. Warren, states: "Your directors felt satisfied in declaring the usual dividends, because the deficit was attributable largely to non-operation and non-production, through temporary conditions not likely to recur." Heavy disbursements were made on capital account, $754,000 being advanced to the West Kootenay Power Co., and $637,413 expended on smelter improvements and extensions.

Steel Co. of Canada

Gross Profits for the Year 1919 Were Slightly in Excess of Four Millions

Gross profits of the Steel Co. of Canada, Limited, for the year ended December 31, 1919, amounted to $4,000,940, comparing with $5,367,120 in 1918 and $6,040,318 in 1917. In both the latter years, however, allowances were necessary for the excess cost of construction of coke ovens, etc., which did not apply in 1919, so that the showing on the whole compared favorably with previous years. After the usual deductions for reserves, interest, sinking fund and dividends,

$872,430 remained to be carried to profit and loss, bringing the balance in that account up to $8,195,302.

In his report to the shareholders, the president, Robert Hobson, stated that in connection with the coke ovens it has been decided to instal a plant for the extraction of benzol from the gases of the ovens, and work has already been started on this plant. In addition, the directors have under consideration further material extensions, which will increase the output of semi-finished and finished material at an economical cost. The company have consolidated coal holdings with two very strong U.S. companies, and now hold a one-third interest in 4,438 acres in block.

Sawyer-Massey Co.

Results for the Last Fiscal Year Were not Particularly Encouraging to Shareholders

Profit earned by the Sawyer-Massey Co., Limited, for the year ended November 30, 1919, amounted to $144,445. After paying administrative expenses and bond interest, a net profit of $63,573 remained. The company started the year with a debit balance in profit and loss account of $310,114, and to this was added the sum of $206,446, written off for bad and doubtful debts. Deducting net profit for the year, the adverse balance at November 30, 1919, was $452,987. It is stated, however, that the amounts written off and the figures as they now appear in the balance sheet reflect the realizable value of the liquid assets.

In Western Canada sales were less than in the previous year, due in part to acute competition in American-made tractors admitted "duty free," injury to crops due to drought, and stricter regulations regarding terms and credit. In Eastern Canada sales were in excess of the previous year, due to a greater demand for road-making machinery. Foreign sales showed an increase, due to shipments of threshers to the United States. Prospects for the present year are declared to be encouraging.

Canadian Westinghouse

Earnings for 1919 Showed Only a Small Decline From Those of Previous Years

Earnings of the Canadian Westinghouse Co., Limited, from manufacturing operations were $1,416,205 in 1919, as compared with $1,622,048 in 1918. Net profits were $600,936, as compared with $560,646. The balance carried forward was $1,814,272, as against $1,711,688.

The chairman of the board, H. H. Westinghouse, reports that "Business in the first year following the close of the World War has been marked by readjustments unavoidably associated with the sudden change in the underlying basis of all industrial endeavor. In place of imperative requirement for production of all agencies of destruction and their application to the point of contact between the huge contending armies—heedless of cost so long as time, quantity and effectiveness were served—the effort became one of seeking to re-establish production of the necessities and comforts of life and their distribution, both under the requirements and the limitations of the ordinary operations of commerce so long and so severely interrupted. For the first few months there was a feeling of hesitancy and a slackening of operations, but with a growing realization that shelves were bare of supplies the world over, expansion followed curtailment, so that before the end of the year manufacture was equalling, and in many lines exceeding, its pre-war activity.

"Your company, whose products are of the prime requisites of the industrial and transportation life of the com-

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THE CANADIAN BANK OF COMMERCE

PAID-UP CAPITAL - $15,000,000
RESERVE FUND - $15,000,000

86A

The Merchants Bank of Canada

Head Office, MONTREAL Established 1864

Paid-up Capital	$ 7,000,000
Reserve Funds	7,574,043
Total Deposits (Nov. 30, 1919)	167,000,000
Total Assets (Nov. 30, 1919)	200,000,000

President: Sir H. Montagu Allan, C.V.O
Vice-President: K. W. Blackwell
General Manager: D. C. Macarow
Supt. of Branches and Chief Inspector: T. E. Merrett

THE WORLD OF FINANCE

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365 Branches in Canada Extending from the Atlantic to the Pacific, of which 138 are in Ontario, 44 in Quebec and 180 in Western Canada

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munity, reflected in its operations these changes in the general situation. With an average amount of business offering during the early months, the year closed with such an increasing volume of orders as to assure that the plants will be taxed to capacity for some time to come. Shipments of products have corresponded closely in amount with those of the preceding year, while higher cost of materials and increased salaries and wages of employees, both universally prevalent, have operated to decrease somewhat the margin of profit."

Goodwin's Limited

Company's Sales Last Year Were Largest in Its History and Profits Increased

Gross profits of Goodwin's, Limited, for the period ended January 28, 1920, amounted to $444,942, being an increase of $107,995 over the previous year. After the payment of bond and other interest charges, a depreciation allowance of $65,000, and the transfer of $10,000 to reserve for doubtful accounts, there remained a surplus of $274,614. The total credit and loss balance is now $959,730. Allowing for all deductions, the year's surplus earnings were equivalent to 15.7 per cent. on the outstanding preferred stock issue of the company, this comparing with 9.4 per cent. in 1918. Sales for the year were the largest in the company's history.

Abitibi Power & Paper

Surplus of the Company Exceeded Million and a Half at End of 1919

Operations for the year 1919 of the Abitibi Power & Paper Co., Limited, before providing for depreciation, etc., showed a profit of $2,125,717. After deducting depreciation, interest and other charges, there remained a surplus for the year of $1,143,693, which, added to the surplus at the end of 1918, made a total of $2,216,943. After paying dividends of $262,500 on preferred and $300,000 on common shares, together with business profits tax of $79,463, the net surplus at the end of the year stood at $1,574,979.

The earnings cover the full capacity of the paper mill for the entire year, but not of the groundwood and sulphite mills which, on account of the unfavorable market conditions in the early part of the year, were not operated to full capacity. For 1920 the company have sold their entire output of paper at materially higher prices, while the indications are that the full capacity of the entire groundwood and sulphite product will be placed.

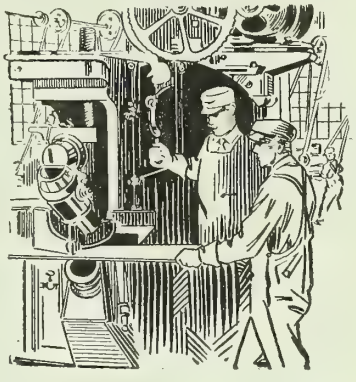
Arrangements have been completed for the sale of $4,000,000 of consolidated refunding 6 per cent. 20-year gold bonds, the proceeds of which will be used to retire the 7 per cent. debenture stock and 7 per cent. convertible mortgage debentures, as well as to defray the cost of new construction now in progress. The latter consists of the installation of three additional newsprint machines, and one wrapping machine, and the completion of a new power plant at Twin Falls.

Canada Machinery

Profits for Year Ending January 31 Showed a Large Falling-off From Previous Year

Net profits of the Canada Machinery Corporation, after the payment of bond interest, amounted to $128,144, as against $277,101 in the previous year. Preferred dividends at 7 per cent. and common dividends at 5 per cent. were disbursed, and $24,778 allowed for depreciation. A balance of $103,197 remained to the credit of profit and loss, as

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Resources of $174,000,000

UNION BANK OF CANADA

Head Office: Winnipeg

422

THE ROYAL BANK OF CANADA

Capital Paid Up	$17,000,000
Reserve and Undivided Profits	18,000,000
Total Assets Over	500,000,000

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compared with $100,880 at the first of the year. The annual report states that "In view of the large volume of second-hand machinery which has been offered for sale, at sacrifice prices, the results of the year are better than we anticipated, and we think will be entirely satisfactory to the shareholders. As to prospects for the current year, it is very difficult to make any forecast, although sales to date show a marked improvement over the same period last year."

Canadian Fairbanks-Morse

Volume of Business in 1919 Showed a Decrease of Approximately 15 Per Cent.

After deduction of all expenses of manufacturing, selling and administration, and after providing for war tax, profits of the Canadian Fairbanks-Morse Co., Limited, for the year ended December 31, 1919, were $532,069. Dividends of $90,000 on the preferred and $128,000 on the common stock were paid, the balance at profit and loss being increased from $1,762,537 to $2,076,607. The volume of business in the sales department showed a decrease of approximately 15 per cent. from the preceding year, business being extremely quiet in the first few months of the year but improving as the year went on and closing with a greater amount of unfilled orders than at any time in the history of the company.

Referring to the Toronto plant, the president, Henry J. Fuller, reports that conditions were such as to make it impossible to resume any production excepting in the closing weeks of the year. This is explained by the fact that the foundry was not operated during the period of the war, and they were not successful, owing to labor conditions, to recruit their foundry organization until late in the year. A policy of intensive manufacture of a few lines was decided upon. The sum of $150,000 was set aside for plant rehabilitation and new equipment.

Port Hope Sanitary

Company in Better Position Financially as a Result of Last Year's Operations

Profits of the Port Hope Sanitary Mfg. Co., Limited, for the year ended January 31, 1920, were $132,015, as compared with $46,285 in the previous year. Net profits were $79,411, which, added to the previous balance at profit and loss, brought the surplus up to $97,107. Current assets amounted to $502,834, as compared with current liabilities of $83,688. Capital assets were $1,096,898. The company's improved position will enable it to carry out its plan for further plant improvements and extensions.

Acadia Sugar

Company's Net Trading Profit for the Past Year Amounted to Sum of $266,918

The net trading profit of the Acadia Sugar Refining Co., Limited, for 1919, amounted to $266,918. From this was deducted interest on loan, $251,461, and directors' fees, $7,300. The balance applied to the debit balance at profit and loss reduced this sum from $221,584 to $213,427.

The directors' report states that during the first six months of the year the feeling generally was that there was an over-abundance of sugar. Buying was of the hand-to-mouth variety, and in consequence the company were forced to carry large stocks of raw and refined sugar and work on a low melt, which at best prices prevailing was most unprofitable. This condition gradually changed, and in the fall months a shortage developed, and business returned to a more profitable basis.

F. R. GRAHAM D. M. SANSON

Do You Need Additional Capital?

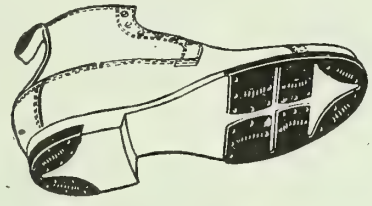
Many prosperous business enterprises are outgrowing their banking accommodations and desire additional capital for one or more of the following purposes:

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We would be pleased to discuss with you our method of under-writing the securities of Canadian Industrial Corporations, which meet our requirements as to management and earnings.

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A Big Proven Money Maker. On sight will prove self convincing that more than half the money now expended for footwear by men, women, boys and girls can be saved. A fortune awaits some Man, Firm or Joint Stock Company to operate the New Canadian Patent. Not much money needed to start the business. A Joint Stock Company is now coining money operating the United States Patent. For full particulars and terms to operate the Canadian Patent, address the Inventor and Sole Owner of Canadian Patent

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Augusta - - Kentucky



So They Called the Expert In

Fred Brock of Baxter and Company was a good Office Manager. That was an acknowledged fact, both among his business associates and the boys at the club. People discussed his organizing ability and the capable staff with which he had surrounded himself.

ONE thing troubled Fred, though: his filing system and certain details of office routine. In the rush of two years of unprecedented business he'd no time to re-organize his system. As a result it had become unwieldy; papers were becoming increasingly difficult to find; complaint reports were coming in with greater frequency from the "Chief" and other department executives, so Miss Thompson, the filing clerk reported.

That was just a year ago—before Fred Brock called to his aid the System Service Expert of "Office Specialty". His business day is much pleasanter for him now—since the "Office Specialty" System Expert analyzed his existing systems and submitted a plan that would not only remedy the immediate trouble, but make ample provision for natural expansion for some time to come.

This is the type of expert service that "Office Specialty" is rendering to its thousands of clients to-day—a concrete service backed by the resources of a centralized System Department whose cumulative experience in solving filing and record-keeping problems in many different kinds of business is offered to you in your individual problem without fee or charge, or without reservations of any kind.

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"Office Specialty" System Service Experts are men who merit the name *expert*. They are trained, practical men. They will gladly make your office routine, record-keeping, or filing problems their own. Their value to themselves, and to us, depends upon the value of their service to you.

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For your factory is the heart of your enterprise, and its efficiency determines your success or failure.

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We will investigate, test, analyze your factory practice, your material, your product, and make confidential suggestions that will be invaluable to you.

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Canada's Industrial Expansion

A Record of Progress

New Yarn Plant

Canadian Cottons Limited, Have Started Work on the Erection of Large Building

Canadian Cottons, Limited, are erecting in connection with their Hamilton mill a plant for the manufacture of yarn. It will be approximately 175 feet in length by 125 feet in width, of reinforced concrete construction, and will have a capacity of about one million pounds of yarn of various kinds per annum. The modern gravity system of handling the process will be followed. That is, the picker room, with dust room below, will be located on the top storey instead of on the ground floor, as was customary before. The end of the mill in which the picker room is located will be six storeys and the rest of it four storeys in height. The W. J. Westaway Company are engineers and contract has been let to the W. H. Yates Construction Company. On completion about 200 hands will be employed.

Starting Twine Factory

Sterling Twine Co., Limited, Formed at Walkerton to Make Commercial Twine and Rope

The Sterling Twine Co., Limited, capitalized at $100,000, have recently been incorporated at Walkerton, Ont., for the purpose of manufacturing commercial twine of all kinds (but not binder twine), for sale to the wholesale trade. They have acquired three buildings in the business portion of the town near the C.P.R. station. One building, 45 x 200 feet, will be used for factory purposes, another 50 x 100 feet for warehouse and a third for storage. Machinery is under order, and it is hoped that a portion of it will be delivered by June, so that operations may commence in July. The balance of the machinery will not likely be ready until September. As soon as the plant gets into the proper swing from fifty to sixty hands will be employed.

Tile Industry Resumes

Frontenac Floor and Wall Tile Co., Limited, Kingston, Re-organized Under New Management

The Frontenac Floor and Wall Tile Co., Kingston, whose plant has been closed down for the past two years, have been reorganized and will operate under entirely new management. Mr. Everett Townsend, who will have full charge of the company, was for twenty-five years managing director of the Robertson Art Tile Co., Morrisville, Pa., one of the largest manufacturers of tile in the United States, making what is called a full line of tile, which includes white wall tile, all kinds of bright, dull finish and opaque colored glazes, pinks and ox-bloods, also ceramics for floors as well as half-inch thick tile in white and various colors.

At the present time it is the intention of the Frontenac Floor and Wall Tile Co. to confine themselves to making ceramics only, as the plant with the present equipment is not arranged to make any of the other lines. The company have been somewhat hindered in starting up because of the delay in getting clays and coal from the States, but they are figuring on operating not later than May 15, and will run the plant to full capacity. The plant superintendent will be Mr. Frank Stevenson, who is an expert machinist and die maker, with seven years' experience with the Trent Tile Co., Trenton, N.J., and three years' with the Old Bridge Enamel Brick & Tile Co. of Old Bridge, N.J.

Open Toronto Office

Mason Regulator & Engineering Co., Limited of Montreal, Take Important Step

The Mason Regulator & Engineering Co., Limited, who are the Canadian manufacturers of the well-known "Reilly" feed water heaters, evaporators, distillers, grease extractors and feed filters and "Mason" reducing valves and regulating appliances, are opening a branch office at Toronto, under the management of Mr. S. Balmfirth. Mr. Balmfirth, who is a member of the executive of the Canadian Association of Stationary Engineers, was formerly chief engineer of the Hospital for Sick Children, Toronto, after having been assistant to the superintendent of the McGill University power house. This is in accordance with the firm's policy of having practical engineers as salesmen and executives and they believe they are able to render better service to their customers by this method.

New Port Arthur Industry

Atlas Manufacturing Co. Make Good Progress Since Inception Last Fall

The Atlas Manufacturing Co., Port Arthur, organized last August by Messrs. W. L. McGregor, A. G. Allen, and A. C. Lotoski, have made such favorable progress that they have found it necessary to secure larger premises. A provincial charter, dated March 1, 1920, has been secured, the company being empowered to carry on the business of electricians, mechanical engineers, workers and dealers in electrical supplies and equipment, to manufacture and produce electric automobiles and to manufacture electric flashlights, portable electric lamps, residential electric light plants, electric advertising signs and a new type of bedsteads and brass and aluminum lamp stands.

The company started operations at 234 Cameron Street, but have recently purchased a location on Ambrose Street. A building on the property, 80 feet long, is being remodelled and it is their intention to erect a new brick building four storeys high adjacent to the present building. The plant, when completed in the first section, will give employment to about 200 men, and when in full running order, with the other section built and equipped, will give employment to about 600 men. At the present time, the company are still in the experimental stage, as models, tools, gigs and machinery are not quite ready to commence actual operation.

W. L. McGregor is president; A. G. Day, vice-president;

A. C. Latoski, secretary and general manager. Other directors are Archibald Gibbons and A. G. Allen, while others interested are A. Swanson and E. H. Guse.

Refinery at Moose Jaw

Plant of the Western Oil Company Being Pushed to Completion Rapidly

From a recent issue of the Moose Jaw *News* it is learned that considerable progress has been made with the construction of the new oil refinery of the Western Oil Co. in that city. Foundations are all in for receipt of plant and the large boiler has been set up. Shipments of lubricating stock have been received and will be used in the manufacture of lubricating oil. The office building on Manitoba Street has been practically completed.

Commerce Trucks in Canada

Detroit Industry Decides to Erect Branch Plant in Guelph and Forms Subsidiary

The Commerce Motor Car Company, Detroit, manufacturers of Commerce trucks, have organized a Canadian subsidiary, Commerce Motor Trucks, Limited, who will manufacture Commerce trucks in a plant to be erected in Guelph, Ont. This plant will consist of a production factory, 90 x 300 feet, with one-storey office building, 60 x 50 feet, and according to present indications will be completed and operating by August 1. The same line of trucks as are made in the Detroit plant will be turned out, viz., a one and one and a half-ton model truck. Production for the first year is estimated at from 5,000 to 6,000 units.

The Canadian company is owned by Canadian stockholders and stockholders in the Detroit company. W. E. Parker, president of the parent company, is president; E. M. Baker, general manager and a director of the parent company, is first vice-president and general manager; H. Westoby, president Dominion Food Products Co., and mayor of Guelph, is secretary-treasurer. Other directors include F. E. Partridge, of the Partridge Rubber Co.; John M. Taylor, Taylor-Forbes Co., and J. E. Carter, all of Guelph. George D. Wilcox and Charles L. Granger, who are respectively director of sales and advertising and production manager in the Detroit plant, hold corresponding positions in the Canadian company.

Bridge Company Re-organized

Sarnia Bridge Company, Limited, Now Operating Under a Dominion Charter

The Sarnia Bridge Co., Limited, have recently been incorporated under a Dominion charter with capitalization of $500,000, for the purpose of acquiring the Sarnia Bridge Co., Limited, incorporated in 1908 under an Ontario charter. The officials are president, R. M. Norton; vice-president, H. B Fenton; secretary-treasurer, H. F. Holland; directors, W. H. Kenny, H. W. Stuart, H. M. Pardee and F. J. Scupholm. Mr. Norton has been connected with the organization for many years and has practically spent his life in the structural steel business, while Mr. Fenton was at one time with the organization, but during the war served with the American Shipping Bureau. The remainder of the directors are local business men.

It is not the immediate intention of the company to enlarge the shop, but plans are being drawn for further development. While the company specialize in structural steel work, they also carry a line of charcoal iron, boiler

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The Eddy Fire Pail

Note how light it is and how strong. No metal to rust or corrode, no hoops to shrink or fall apart. Made of **Eddy's Indurated Fibreware,** moulded, pressed and baked all in one piece with a rounded bottom that assures its being always in its rack or on its hook—where you want it when you want it.



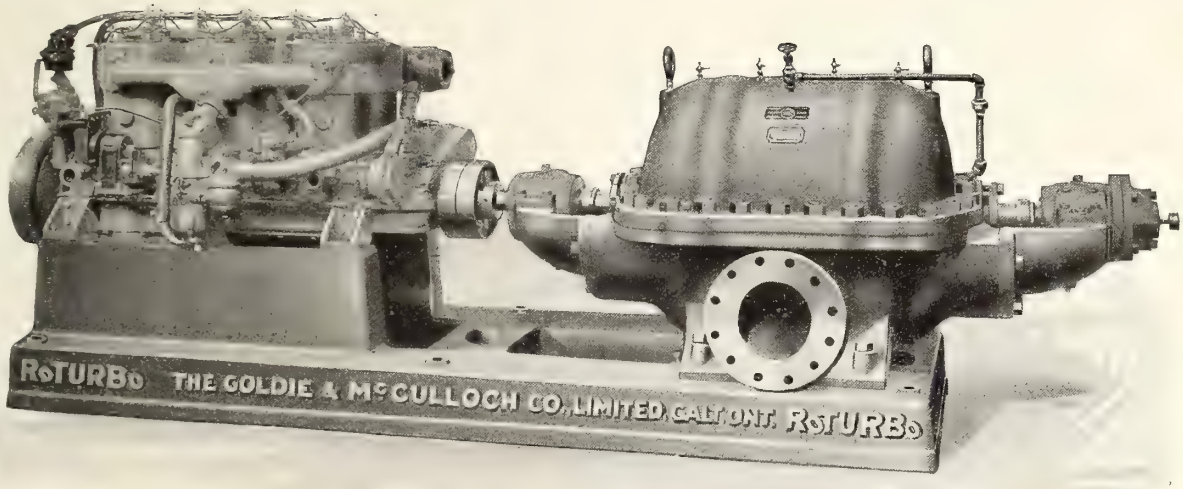
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tubes and alloy steel. They have a large stock of structural steel of assorted sizes carried for warehouse purposes and have built up an extensive trade in this line within the last three years.

Enlarge Welland Plants

Canada Foundries & Forgings, Limited, Installing New Forging Equipment to Double Output

A programme of expansion is being carried out at the Welland plants of the Canada Foundries & Forgings, Limited, which will largely increase the output of heavy drop forgings, automotive axles and crankshafts especially. The company have at Welland large modern steel buildings, served with overhead electric cranes, which were used for forging shells on a large scale during the war. These buildings will house the new forging equipment, which will consist of a battery of heavy steam drop-hammers and miscellaneous equipment, such as presses, upsetting machinery and furnaces, sufficient to double the output of their Canada Forge plant. These will be in full operation by July 1.

The Guelph Cotton Mills, Limited, have been purchased by the Regent Textiles, Limited, and will be operated as before, spinning cotton and twines.

Locate in Woodstock

The Kennedy Car Liner & Bag Company Will Establish a Canadian Branch Industry

The Kennedy Car Liner & Bag Company, manufacturers of Kennedy car-liners, bags and covers, Shelbyville, Ind., have purchased premises in Woodstock, Ont., on which to locate a branch industry for the manufacture of their product in Canada. The building acquired is 40 x 160 feet, three storeys and basement. They hardly expect to be able to commence operations before June 15 or July 1.

Replacing Their Mill

McGibbon Lumber Co., Limited, Penetanguishene, are Building a New Sawmill

A new mill, 30 x 150 feet, with lath mill wing, 40 x 30 feet and sorting shed, 30 x 125 feet, is being hurried to completion by the McGibbon Lumber Co., Limited, of Penetanguishene, in order to replace the mill destroyed by fire last fall. The mill is on cement foundations, while the foundations for engines and boilers are of cement. A double-cut, 13-inch band saw and band upright resaw, with return feed, are being installed. The motive equipment will consist of three 500-h.p. boilers and an engine of 450 h.p. The mill will be ready on June 1.

Concentrate Toronto Plant

Zimmerman-Reliance, Limited, Acquire Large Building and Consolidate Their Operations

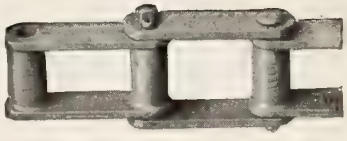
Announcement is made that Zimmerman-Reliance, Limited, manufacturers of underwear, hosiery, sweaters, jerseys, etc., have purchased the building at the corner of King and Bathurst Streets, Toronto, in which they have been renting space. Their purchase will give them about 50,000 square feet of additional floor space, and this will enable them to transfer their spinning plant, at present located at the corner of Niagara and Bathurst Streets, and consolidate their Toronto operations.

Building New Wing

The Kaufman Rubber Co., Limited, to Spend $100,000 on Plant Enlargement

A large addition to the plant of the Kaufman Rubber Company, Limited, is under erection in Kitchener. The new structure covers about 6,000 square feet of space and will







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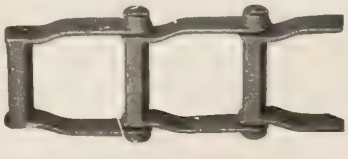
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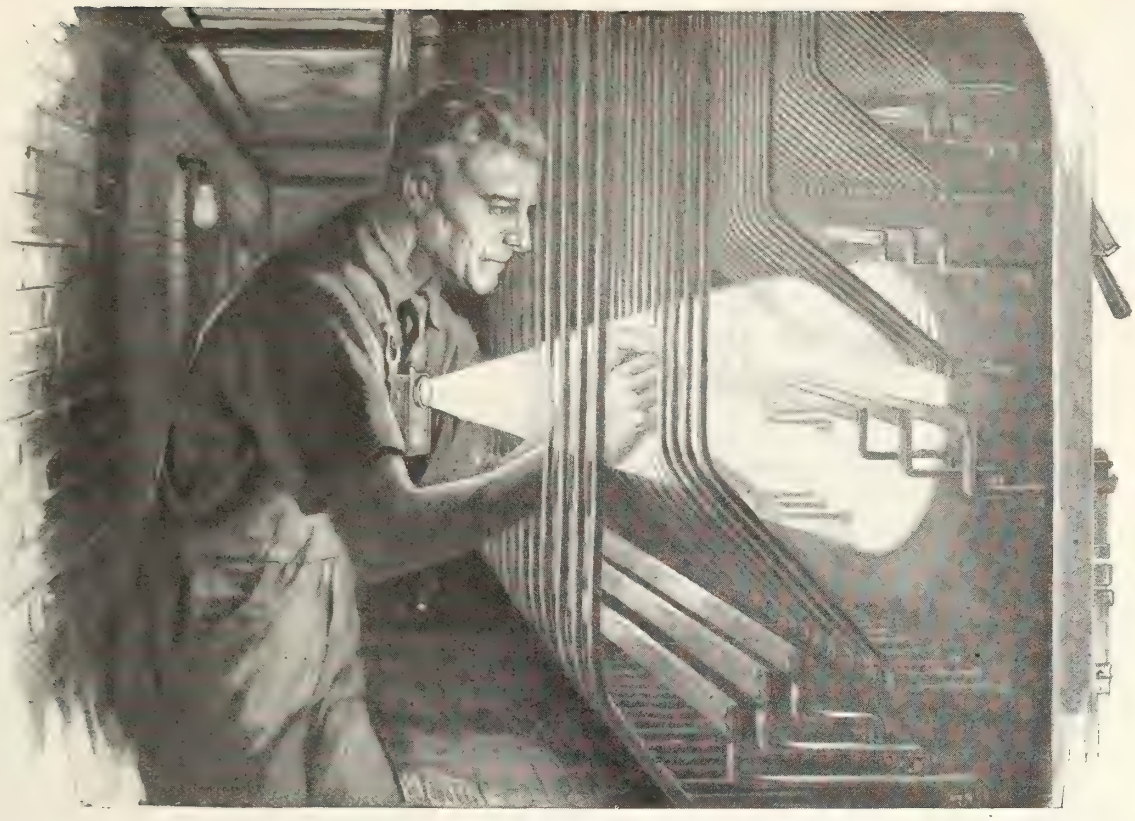
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Even in the darkness of a complete electrical breakdown Daylo enables repairs and adjustments to be made instantly. And its brilliant white light guards against the dangers of fumbling among live connections or bus-bars.

Everywhere in the shop, the storerooms and office—Daylo shortens delays, reduces costs and increases production. It points its all-revealing beam to the quickly needed tool; it locates trouble in machines; it finds the right package on the stock shelves—it answers the hurry call for the "first aid" of light in any dark corner.

Your overhead expense for a five minute shut-down will pay ten times the cost of a Daylo that would have reduced the delay to one minute. And Daylo prevents breakdowns by making machine inspections more thorough.

There's a Daylo to solve your difficulties—one of the many different styles of light that point the way to efficiency. All leading electrical, hardware, drug, sporting goods and auto accessory jobbers and dealers stock Daylo. Or write us.

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Toronto, Canada

A-1113



be four storeys and basement, being an extension of the present building. It is expected that the extension will be ready for operation by about December 1. It will be utilized in the manufacture of rubber footwear and will provide space for an additional 100 employees. The investment represented is about $100,0000.

To Erect New Plant

Elliott & Whitehall, Machine and Tool Co., Expect to be Operating by September

The Elliott & Whitehall Machine & Tool Co., who have been granted a loan of $25,000 by the city of Galt, to assist in the erection of a new plant, will proceed with construction at once. The plant will be built on a two-acre lot at the corner of Dundas and Beverly streets, and will be fifty feet wide. They will manufacture their standard line of milling cutters and small tools, also metal stamping dies, jigs and fixtures, and expect to be located in their new plant by September, when they will employ about sixty hands.

Enlarging Tannery

C. Parsons & Son, Limited, Toronto, Are Making Addition to Their Plant at Omemee

C. Parsons & Son, Limited, Toronto, have discontinued the manufacture of harness leather at their tannery in Omemee and are remodelling and enlarging the plant in order to undertake the manufacture of sole leather. The addition to the plant has been commenced and they expect to have it completed in July or August. The capacity of the new plant will be from 300 to 400 sides per day.

New Brick Industry

Whitby Brick and Clay Products Co., Limited, Are Putting Up a Modern Plant

The Whitby Brick and Clay Products Co., Limited, successors to Wm. Gilmore, Whitby, Ont., are erecting a thoroughly modern plant. Seven 30-foot round down-draft kilns will be erected with waste-heat drier and up-to-date machinery. The plant will have a capacity of 30M brick per day or an equivalent tonnage of hollow-ware. The machinery has already been purchased and the lumber and other material for construction is now partly on the plant. They have a very fine raw material, and will be able to put a first-class article on the market.

To Make Sidecars

The Canada Sidecar Manufacturing and Welding Co., Limited, Incorporated at Hamilton

The Canada Sidecar Manufacturing & Welding Co., Limited, have recently been incorporated at Hamilton, with capital of $100,000, to take over and operate the Canada Sidecar & Mfg. Co., and the W. Carter Welding Co., and will engage in the manufacture of motorcycle sidecars, vans, accessories, etc.; also conducting a general oxy-acetylene, electric, thermit, welding and manufacturing plant. At present they are using the original plant, but they contemplate building additional premises in the near future, and are in the market for lathes, drills, power hack saws, electric spot welders, etc. Present production is 500 sidecars per annum, but this is to be increased to 1,000 sidecars, in addition to their line of motorcycle delivery vans, accessories, etc. Wm. Carter is president; Wilfred Carter, secretary and treasurer; Wm. Boston, advertising manager, and Arthur Paterson and Wm. H. Fowler, directors.

The Canadian Appraisal Company

Limited

FULL consideration must be given to the present conditions of high costs if adequate insurance is to be provided, an adverse operation of the Co-insurance Clause is to be avoided, and a satisfactory adjustment is to be assured in the event of fire.

Buildings erected only a few years ago may very possibly be worth double their original cost to-day. *This increased value is insurable and must be insured.* A bitter experience awaits the manufacturer who has not considered the necessity and who may have to rebuild after a fire.

To guess at values when insuring is obviously bad business. A leading Insurance Company states: "It is a fact that 85 per cent. of manufacturers do not carry enough fire insurance as compared with their present valuations."

An Appraisal made on the basis of to-day's costs of labour and material is the only sound foundation for correct methods of insurance.

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NEARLY every big fire had a small beginning. Chicago was burned because an old woman's cow took a notion to kick.

One Grinnell Automatic Sprinkler would have saved Chicago. One Grinnell Sprinkler may some day save your plant from total destruction.

Of course you feel you have already all the fire protection you need but---your insurance rate will tell you the danger of fire is two to five times what other men will tolerate.

Go to your insurance man. Tell him you are thinking of installing a Grinnell Automatic Sprinkler System. Ask him what it will save you in premiums. Then figure out how long it will be before the Grinnell System has paid for itself.

No fire appliance that depends on human agency can possibly compare with the ever-watchful Grinnell silent sentinel.

Day or night, Sunday and holidays, it waits for the first sign of fire. Then, "click." The fire is over almost before it has begun because ***when the fire starts the water starts***---and on even terms water always wins.

Important

Heretofore the underwriters have often required a tank supply for automatic sprinklers in addition to the city mains. Now, however, Grinnell Sprinkler equipments can often be installed without a tank.

Don't theorize. Get the facts. Write to us for full information about *your* business.

GRINNELL COMPANY OF CANADA

FOUNDED 1850

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Complete Engineering and Construction Service on Automatic Sprinklers.
Industrial Piping, Heating and Power Equipments. Fittings, Pipe, Valves.

GRINNELL AUTOMATIC SPRINKLER SYSTEM---*When the fire starts, the water starts*

Improve Canadian Plants

The Carborundum Company to Extend Capacity at Niagara Falls and Shawinigan Falls

The Carborundum Company, who have been greatly extending their paper and cloth plant at Niagara Falls, N.Y., have plans for enlarging their two Canadian plants at Niagara Falls, Ont., and Shawinigan Falls, P.Q. At the former, additions to the crushing department, and other improvements will be made, which will increase the output of abrasive aloxite, and at the latter the carborundum furnace plant will be extended. At Niagara Falls, N.Y., at least fourteen different departments will be enlarged, an addition 81 x 432 feet having been erected.

Re-open Canadian Plant

The Draper Manufacturing Co., Port Huron, Will Again Operate Their Plant at Petrolia

The Draper Manufacturing Co., Port Huron, announce that they are re-opening and extending their plant at Petrolia which was closed down some time ago. The company manufacture valve facing tools, ball check valves, ball globe valves, balanced brass balls, perfect iron and steel balls, perfect brass balls, etc. Their business will be principally with the railways and paper mills and with other users of brass balls. They expect to be in running order within the next two months and will do export business from the Canadian plant.

Enamelled Wire Plant

Eugene F. Phillips, Electrical Works, Limited, the Pioneers in New Line of Industry

The Eugene F. Phillips Electrical Works, Limited, Montreal, confirm the report that they are installing an enamelling wire plant in connection with their industry. This material is not at present manufactured in Canada, and has to be imported from the United States. They expect to be producing by the end of June, and will have a capacity of from 300,000 to 400,000 lbs. per annum. The plant that is being installed will be capable of turning out enamelled copper wire of any of the regular gauges, both coarse and fine, and the company will be in a position to supply this material either as plain enamel or insulated with cotton or silk, as may be required.

New Furniture Company

Malcolm & Hill, Limited, Formed to Take Over the Business of D. Hibner Furniture Co.

Malcolm & Hill, Limited, is the name of a new company incorporated for the purpose of taking over the business of the D. Hibner Furniture Co., Kitchener. The principals are James Malcolm, of the Andrew Malcolm Furniture Co., Limited, Kincardine, and Edwin A. Hill, president of the Toronto Plate Glass Co. It is the intention of the new company to operate a highly specialized chamber furniture plant at Kitchener, making exclusive designs. A new feature will be the use exclusively of Canadian birch lumber, with mahogany and walnut veneer panels in three colors, viz., mahogany, walnut and enamel.

Malcolm & Hill, Limited, have secured the services of Stanley H. Stirrup, the famous English designer, who has severed his connection with Berkey & Gay and the Luce Furniture Co., Grand Rapids, and who will in future make his home in Canada, designing lines for the Andrew Malcolm Furniture Co., Limited, and Malcolm & Hill, Limited.

The factory will be superintended by Henry Maxwell, formerly with Berkey & Gay, one of the best known furni-

Special Belts for Woodworking Metal and Textile Machinery

Motor Fan Belts



Lace Leather Mechanical Leathers of every Description

Solid Woven Cotton Belting

Manufactured by

McARTHUR BELTINGS, LTD.

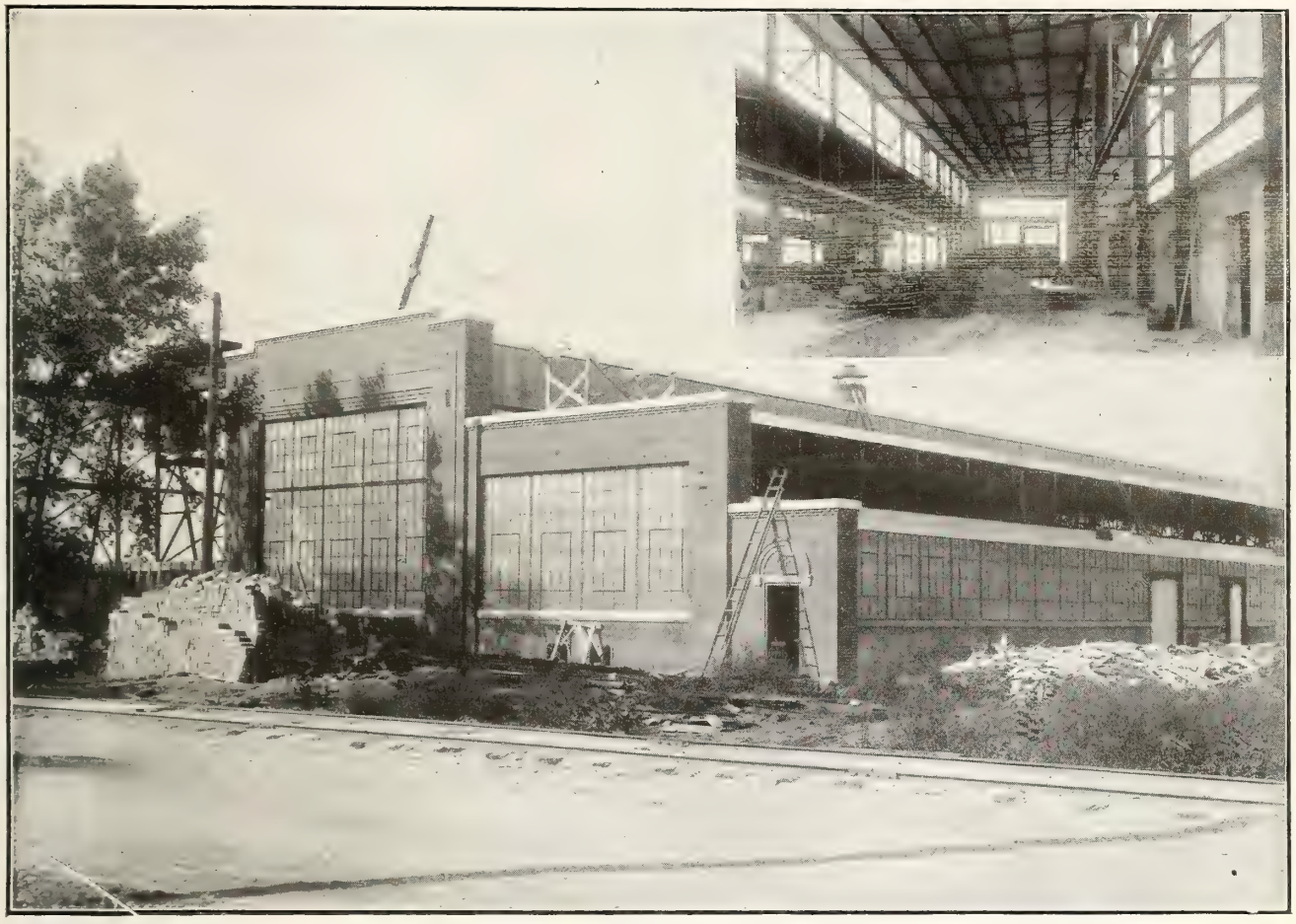
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Wells & Gray Limited

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Smoke Stack and Boiler Paint

Canadian Oil Companies, Limited
Scientific Refining
General Offices: Toronto, Canada



For Full Information Write for Catalog I

Canadian Mathews Gravity Carrier Co., Ltd.
PORT HOPE, ONT.

the superintendent on the continent. The finishing department will be in charge of Fred Hanson, formerly with the Grand Rapids Chair Co. The president of the company is E. A. Hill, the vice-president and managing director, James Malcolm, and the secretary treasurer, J. H. Kennedy, who was formerly in the banking business, but more recently with the Knight Metal Products Co. of Toronto and Detroit. The capital is $500,000, fully paid up.

Enlarging Their Plants

Beatty Bros., Limited, Fergus, Increase Capital and Add to Their Capacity

Beatty Bros., Limited, Fergus, who are manufacturers of barn and stable equipment, pumps, churns, washers, ladders, etc., have recently increased their capital from $750,000 to $2,000,000, in order to provide additional capital to take care of increased business. Not only has home trade been largely increased since the end of the war, but they have been doing considerable foreign trade as well. They are selling a certain amount of new stock, and will invest this year about $150,000 in additions to buildings, plant and machinery. They are adding some 70,000 square feet of floor space to the Fergus plants, and making certain changes and improvements to the London factories.

Bakery for Ottawa

Standard Bread Company Purpose to Erect Modern Plant in Heart of City

The Standard Bread Company, Ottawa, have purchased a large site of 60,000 square feet in the heart of the city, and purpose erecting one of the most modern and efficient plants in the Dominion. Its estimated cost is $200,000, and it will include a Joseph Baker gas-fired travelling oven, the latest wonder in the baking industry. The Standard Bread Co. have only been in business five years. The owners are G. Cecil Morrison and Richard Lamothe, both young men under thirty years of age. The company have enjoyed phenomenal success, due mainly to the determination of the owners to put out a high-class loaf of bread and give good service. Providing labor conditions are satisfactory, ground for the new plant will be broken about July 1st, and the plant will be completed early in 1921.

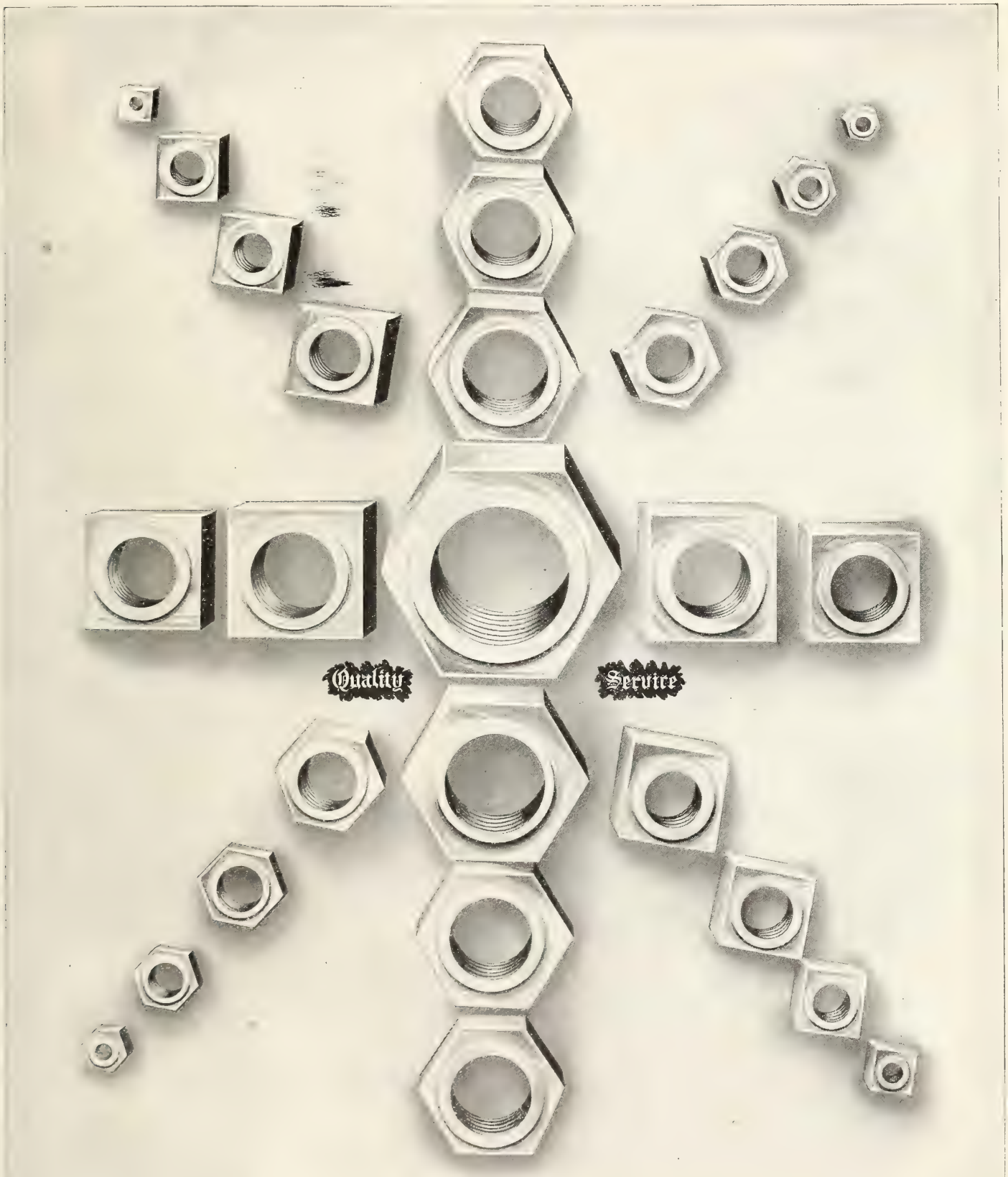
Locate at Peterboro

The Raybestos Company, Bridgeport, Conn., Are Establishing a Canadian Plant

The Raybestos Co., Bridgeport, Conn., who make brake linings, clutch facings, automobile brakes and specialties for Ford cars have purchased the factory in Peterboro, formerly occupied by the Lundy Shovel & Tool Co., and will make use of it for the manufacture in Canada of their standard Raybestos products. The factory has a floor space of 20,000 square feet, single storey, and has service by both G.T.R. and C.P.R.

At the present time there is no manufacturer of asbestos brake lining in Canada, although 80 per cent. of the world's supply of asbestos is mined in the Dominion. As business develops, with the increasing manufacture and use of cars in Canada, the company will construct new buildings. There have been delays in getting machinery and parts, but they hope to get started by the middle of summer.

The company are originators of asbestos friction lining for automobile brakes and clutch discs, their lining being distinguished by a silver edge and trade-mark "Raybestos" stamped in silver on every foot. It is a nationally advertised product and is distributed in all parts of the world where



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OF
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Monarch Metal Co.

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Dominion Forge & Stamping Co., Ltd.

WALKERVILLE, ONT.

Toronto Office : Excelsior Life Building

any automobiles, trucks or tractors are in use. Up to the present time the product has been distributed in Canada through the medium of automobile accessory jobbers, but this business has been more or less limited, due to the tariff and rate of exchange.

It is the intention of the Amerlin Company to build a large addition to their present factory building at Petrolia, but details as to size, etc., have not yet been worked out.

The Canadian Fairbanks-Morse Company, Limited, are erecting a building on Pitt Street East, Windsor, which will be used for sales office and warehouse. The building will be two storeys, 50 x 90, with iron warehouse to the rear.

The National Shipbuilding Co., Limited, Goderich, intend installing a mill for the refining of fibre and seed from the flax crops in the vicinity. Details of the project are not yet available.

The Brompton Pulp & Paper Company, Limited, will start at once on the construction of a new groundwood pulp mill at East Angus, Que., which they expect will produce about 20,000 tons per annum.

The Canada Wire & Cable Co., Limited, whose factories are at Leaside, decided some time ago to establish an enameled copper wire department in connection with their industry and expect to have the same in operation by June.

The new factory addition of the Guelph Worsted Spinning Mills, Guelph, was formally opened on the evening of April 13, when a banquet and dance, attended by over 400 people, was given by the management.

The Saskatchewan Co-operative Elevator Co. have purchased twenty acres of land immediately south of the Forsythe Elevator at Portage la Prairie with a view to erecting a large elevator and flour mill on the property. The construction plans call for reinforced concrete elevator of thirty-six tanks. It is expected work will be commenced this season.

Fulton Motors Corporation, New York City, are arranging for the manufacture of the 1½-ton Fulton truck in Canada, but, according to information received from Garvin Denby, president and general manager, do not contemplate the building of a plant. The manufacture and distribution of the car will be undertaken by the Denby Motor Truck Co. of Canada, Chatham.

Sydney Basic Slag

The Cross Fertilizer Company, Limited, Sydney, N.S., issue a folder giving reasons why their product should be bought in preference to acid phosphate. Apart from the results of experiments, which are attested by a number of government officials and departments, an economic argument is advanced. It is contended that the bulk of acid phosphate used in Canada is imported from the United States, or, when manufactured in Canada, is made from imported rock phosphate. By buying the all-Canadian product the purchaser is helping to restore the value of the Canadian dollar.



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SPRUCE AND WHITE PINE

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Modern and completely-equipped planing and resaw mills

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Character preaches the Gospel of Christianity amongst men. It possesses a dynamic power to influence humanity. It denotes strength, integrity and the desire to serve others.

An organization of character is not a vision. It is immensely practical. Each member, skilled or unskilled, feels its uplifting influence. Their policies and actions are guided into safe and sure channels—channels of service, the practice of good will and the satisfaction of all reasonable requests.

McCLARY'S are such an organization. They commenced to build character 73 years ago. Big minded, practical executives saw the value of character in the minds of intelligent buyers. They have carried through by force of example this original plan. To-day, to all men who desire to associate themselves with such a dependable organization, McCLARY'S invite their co-operation in the displaying and selling of their famous quality products.

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LONDON TORONTO MONTREAL
WINNIPEG VANCOUVER ST. JOHN, N.B.
HAMILTON CALGARY SASKATOON
EDMONTON

New Pension Plan

Northern Electric Co., Limited, Introduce Generous Scheme of Pensions and Benefits

The latest company to introduce a pension and benefit scheme is the Northern Electric Co., Limited, Montreal. This company have established a fund for the purpose, the whole cost of operating the scheme being borne by the company. A committee consisting of the general superintendent, secretary, general sales manager, chief engineer and chief accountant has been appointed to administer the fund and to decide all questions relating to the plan.

The plan embraces pensions for retired or disabled employees, accident disability benefits, sickness disability benefits and death benefits and the whole has been worked out on a generous scale. Ample provision has been made for those employees who left the employ of the company for military service, as is shown in the following paragraph taken from the plan:—

"Military Service, 1914-1919: All former employees who left the employ of the company for military service, and who returned to our employ previous to January 1st, 1920, shall receive credit for the total period of their military service when calculating their 'term of employment.'"

Good Power Possibilities

Massey Board of Trade Anxious to see Neighboring Rivers Developed

The association is in receipt of a communication from the secretary of the Board of Trade of Massey, Ont., directing the attention of manufacturers to power prospects in the neighborhood of that town. Massey is situated at the junction of the Spanish and Sauble Rivers, on the C.P.R. Soo Line, about fifty-eight miles west of Sudbury. The Sauble River forms the east boundary of the town, and while it is classed as a small river, is capable of providing considerable electric power when developed. The water powers are located at from one-half to sixteen miles from Massey, the natural fall of the river being such that many units could be developed in the distance named without excessive cost. There are other powers at a greater distance up the river and a large reserve of water could be maintained. A gravel auto-truck road extends for twenty miles up the river, built and in use by the lumbermen. The Spanish River is capable of navigation from Massey to the Georgian Bay by vessels of seven or eight feet draft, which could be increased to ten or twelve feet by dredging the sand bar at the mouth of the river.

Grain Growers Sell Bonds

United Grain Growers Dispose of Large Issue to the Sun Life Assurance Co.

The Montreal *Journal of Commerce*, in its issue of April 6, prints the following item regarding a sale of bonds by the United Grain Growers to the Sun Life Assurance Company of Canada:

"A financial transaction of national importance, but of especial interest to the farmers and grain growers of the West, has just been completed between the United Grain Growers and the Sun Life Assurance Co. of Canada, according to an announcement obtained by this newspaper from Mr. E. A. Macnutt, treasurer of the Sun Life.

"The remarkable growth of the vast amount of good accomplished by the United Grain Growers in their measure of co-operation in the marketing of grain, etc., for the farming community of Western Canada are well known.

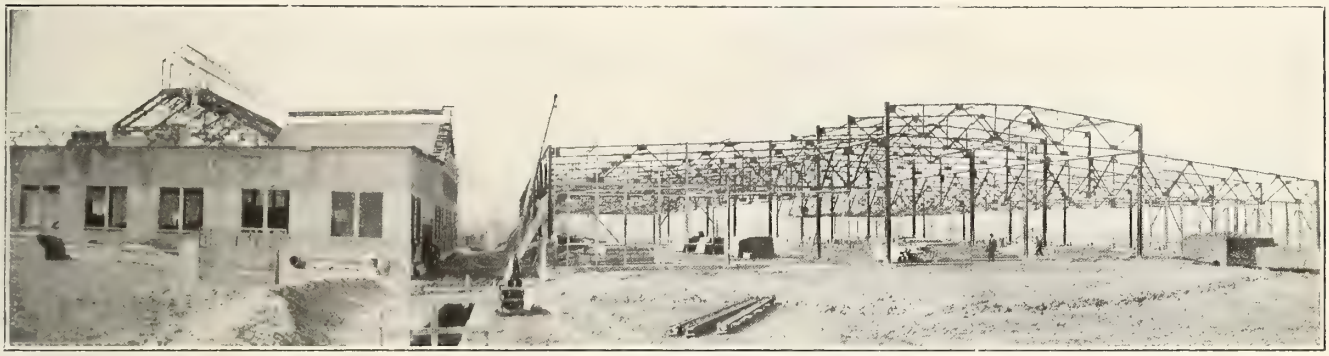
THE HAMILTON BRIDGE WORKS COMPANY

HAMILTON, CANADA LIMITED

STRUCTURAL STEEL

Engineers, Manufacturers and Contractors

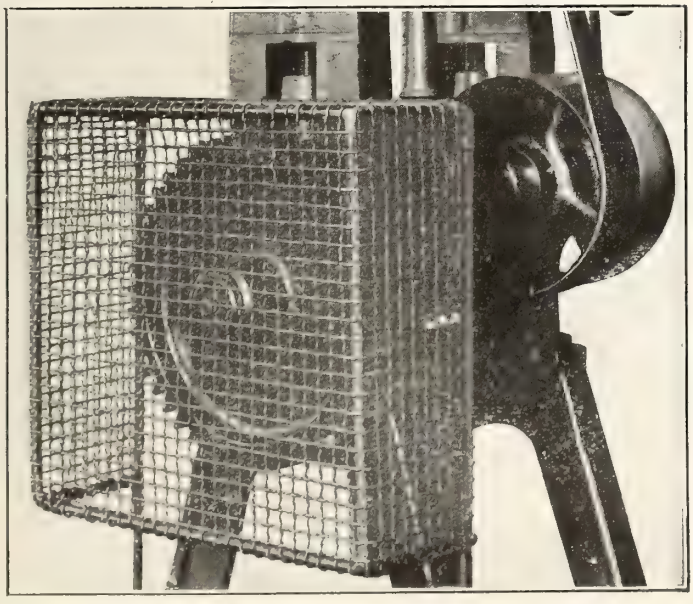
Annual Capacity 36,000 Tons



Steel Buildings for Glass Works, Thorold, Ont.

Steel Railway and Highway Bridges, Buildings, Crane Runways, Towers, Turntables, Tanks, Girders, Trusses and Columns

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Wire Machinery Guards

Wire Window Guards

Wire Screening

Wire Cloth

Wire Work of all kinds

C. H. JOHNSON & SONS, LIMITED

Wire Works: St. Henry, Montreal

The board of directors of the United Growers intend to branch out on a still larger scale and has just authorized an issue of two million dollars of six per cent. first mortgage twenty year gold bonds.

"Three-quarters of a million of this issue has just been purchased by the Sun Life of Canada, and the remainder of the issue, when needed by the Grain Growers, will be offered to the Sun Life.

"This is an instance of a Canadian Life Company which draws its resources in the way of premiums from the public, directly assisting a co-operative enterprise of a very important section of the people.

"The bonds are secured on the elevators and real estate of the Grain Growers spread over the provinces of Alberta, Saskatchewan and Manitoba, and the company is composed of more than 30,000 shareholders who reside in these western provinces and are farmers and grain growers.

"The head office of the Grain Growers is in Winnipeg and the officers are: President, Hon. T. A. Crerar; first vice-president, C. Rice Jones; second vice-president, J. Kennedy; secretary, J. A. Hand; treasurer, F. N. Black."

Engineers Visit Plant

Ontario Section, A.S.M.E., Guests of Canadian Fairbanks-Morse Company, Limited, Toronto

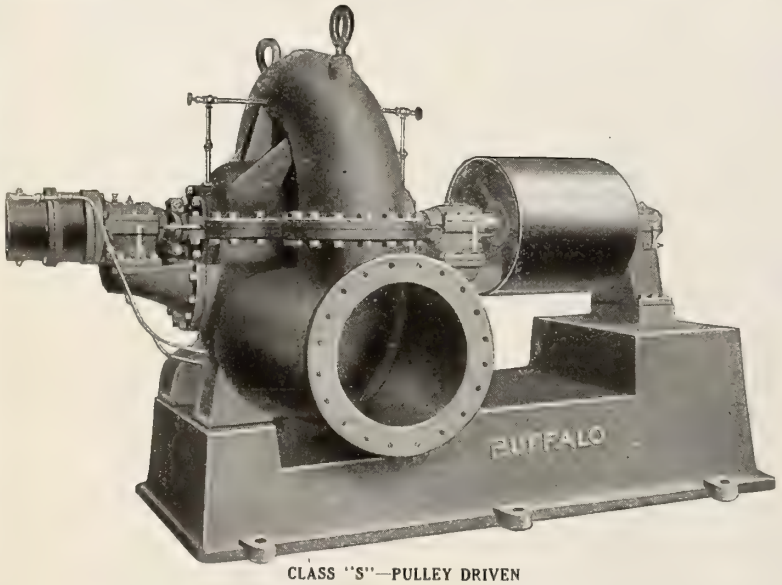
The Ontario Section of the American Society of Mechanical Engineers held one of the best meetings of the season on Thursday, April 8th, when they were the guests of the Canadian Fairbanks-Morse Company, Limited, at their Bloor Street West plant, Toronto. The programme began at 4 o'clock with a trip through the manufacturing department of the Fairbanks plant. At 6 o'clock the company entertained the entire party at dinner in the new club room on the top floor of the main building. These club rooms with the cafeteria on the floor below are a part of the general welfare scheme of the company, and are just now open. At 8 o'clock the meeting was called to order to listen to a paper by Mr. B. P. Graves, designer of milling machines for the Brown & Sharpe Manufacturing Company, Providence, R.I. His subject was "Milling Machine Design," and he spoke of this subject with the authority and naturalness of one who has grown up with it. The lecture was illustrated with lantern slides, and was followed by a very interesting discussion which became at times quite of a detail nature. In the absence of Professor Angus, the chairman, Mr. Watkins, of the Fairbanks Company, was both presiding officer and host.

Monarch Knitting

Company Maintains Its Net Profits and Builds Up a Substantial Reserve

The Monarch Knitting Company, Limited, in the thirteen-month period ended December 31, 1919, earned net profits of $386,686, as compared with net profits of $351,654 in the preceding twelve months. After the payment of $133,375 in dividends, $253,311 was added to the balance at credit of profit and loss, bringing this up to $925,217. Assets show an increase from $3,371,313 to $3,469.405.

The report states that the popular demand for the company's goods continues. An addition to the hosiery plant at St. Catharines is being built. Nearly 1,500 employees are engaged in turning out the various lines of "Monarch Knit" products. A dividend of 4 per cent. and bonus of 2 per cent. was paid on the common stock. It is hoped that with the continuation of good business conditions and reasonable tariff regulations, this dividend will be maintained.



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Centrifugal Pumps

The ideal unit for Condenser Service—both for handling circulating water and condensate. Also especially adopted for General Water Supply. Booster Service and Spray Systems.

They maintain high efficiency over a wide range of capacities and will not overload your driving unit. Built in sizes from 1" to 48".

Write for Bulletin 270-14

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Manufacturers, PREVENT Big Fires by "nipping them in the bud," with

IMPERIAL FIRE EXTINGUISHERS

(Every "IMPERIAL" bears the Underwriters' label)

If your factory burns, how will you fill orders during the long period of rebuilding? How will you hold your customers? How will you hold your employees? Your ***Insurance*** won't do all this!

Every Insurance Company makes an allowance on the premium rate for the installation of APPROVED Extinguishers.

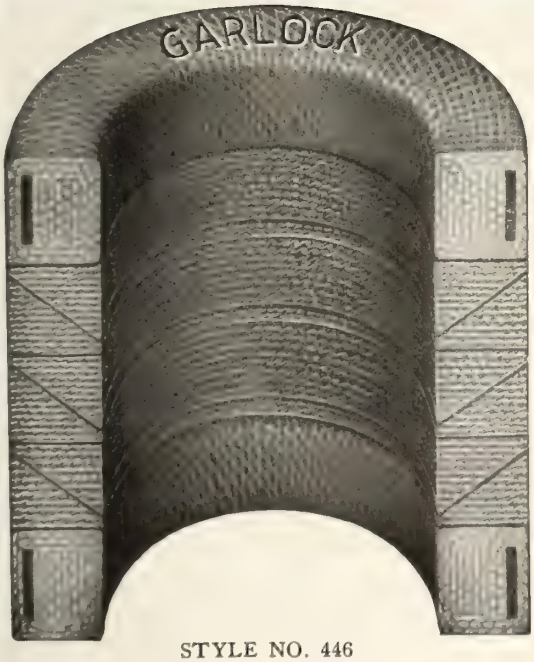
Your Insurance Agent can tell the exact amount an "IMPERIAL" will save you.

"Put the Fire out before it Puts you out"

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FOR PACKING

High Pressure Steam Rods
Use Garlock Style Number 200

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Use Garlock Style Number 446

Low Pressure Steam Rods
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Use Garlock Style Number 336

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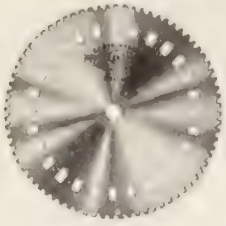
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More Light in Your Factory—

The brighter the factory the greater the production. To make the most of the present light is more practical than renovating the buildings.

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Mill and Factory White

Reflects and diffuses all the light that comes through the windows. Increases daylight 20 to 35%. Reduces accidents, discontent and makes your plant more sanitary. Write for information.

A. RAMSAY & SON COMPANY

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Toronto MONTREAL Vancouver

3

The Closing Down of a Great Factory

(From the "London Standard")

THE employees of Brinsmead, the famous pianoforte factory, which, it appears, is to close down through growing expenses and dwindling output, state that they are "completely taken by surprise," though apparently there has been a good deal of conference between masters and men on the way things have been going—or, rather, not going. In view of this disadvantage, no definite statement is made from the men's side, but it is declared they they "have nothing to fear from full inquiry."

The main point about any inquest, however, is the body. The coroner may be pleasant to everybody concerned, the jury may be highly sympathetic, the police constable may be congratulated on the way he gave his evidence; but, after all, the corpse remains a corpse, and will pay no further dividends as a going concern. Brinsmeads' workmen may be able to lay their hands on their hearts and say they did everything to avoid trouble. But the cold fact remains that the directors have found that, despite exaggerated prices charged to the public, they are unable to produce at a profit. It took six employees just before the war to turn out a piano a week; it now takes 26; in America, one of the directors states, the same output is attained with only two men.

Trade Going Out of Business.

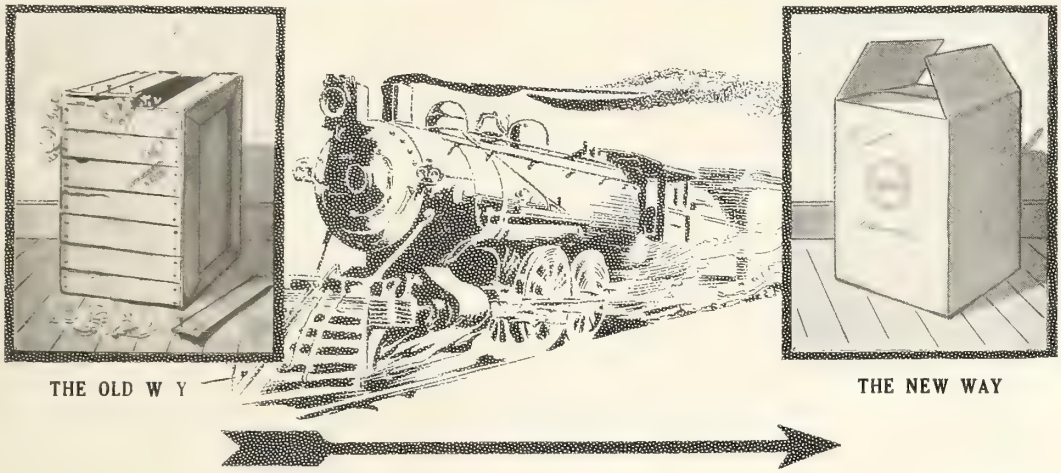
It seems that "baby grands," which before the war were sold to the public for £84, are now being sold (at a loss) for £220; the cost of polishing alone is about equal to the pre-war prime cost of the completed materials. In such circumstances it is not wonderful to learn that a formerly large overseas trade is "diverted to other countries where production is cheaper and more certain." Yet, say the men, the firm paid no more than any other piano manufacturers; they got the trade union wage and no more. The inference seems to be simple, though not quite what the trade unions would have the public make. It is that the British piano trade generally is likely to go out of business.

Now, Brinsmeads' is a pocket edition of what is going on everywhere. Increased wages would not matter if they were accompanied by an equivalent in increased efficiency. But the tendency everywhere is towards increased wages, reduced hours, and reduced energy during those hours. With this triple leakage, production sags, prices to the public are forced to an extravagant level, and finally even at that level profitable business is impossible.

We simply cannot go on that way. The greater part of the goods produced in this country, apart from a few staple trades, are articles of luxury, and there is a limit to what the country (and the world in its present state) will pay for non-essentials. For some time longer, no doubt, labor will be able to compel in certain great industries, such as those which provide us with coal, clothing and other vital wants, wages in excess of the economic level. But this can only be done at the expense of other trades, and as the working expenses of those trades go beyond reason we may expect many stoppages like that of Brinsmeads'.

The moral for labor is surely obvious enough. Brinsmeads can shut down and get out without ruin. Brinsmeads men cannot shut down without ruin. For the moment they may get good employment elsewhere. But what has happened with Brinsmeads is bound to happen on a large scale unless

H. & D. Corrugated and Solid Fibre Board



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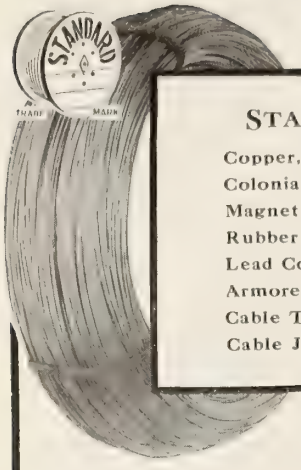
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things alter, and sooner or later labor will discover to its cost the grim truth embedded in the old fable of the goose that laid eggs of gold.

Manager's Statement

Mr. Henry Billinghurst, managing director of John Brinsmead & Sons, and a grandson of the firm, issued the following statement:

"Yesterday I had one of the hardest tasks of my life. I had to write and cable to my agents throughout the world cancelling valuable contracts because the firm of John Brinsmead & Sons is no longer able to carry them out. The firm has been compelled to give up the making of pianos, a business in which it has specialized for nearly a century.

"The task was a heart-breaking one. Before the war, when we in the firm represented a big, happy family, the possibility of such an event as this would have been laughed to scorn. And even now, when all my employees are under notice, the thing seems strange and unreal. I find myself wondering why, in the twentieth century, when we are supposed to be so enlightened, a world-renowned business should have to be destroyed.

"Yet, there are the facts. We have to give up piano-making at a time when there is an unprecedented demand for our instruments.

"I do not exaggerate when I say that such an event as this is of national importance. It means that industrial methods have been pursued to such extraordinary lengths that both master and men are driven out of the field.

"My honest opinion is that unless conditions change many other firms will be compelled to close down just as we have done. Against such an evil as under-production the business man of to-day is helpless. It inevitably forces men into unemployment and the master into giving up business.

"We have had to decide to close down at a moment when we are overwhelmed with orders. The firm has enough work in hand to keep its big works employed at full speed for two years. It is four and a half years since I had a traveller out. Orders are simply tumbling in without any solicitation. Everybody seems to want one of our pianos.

Will Not Produce Fast Enough

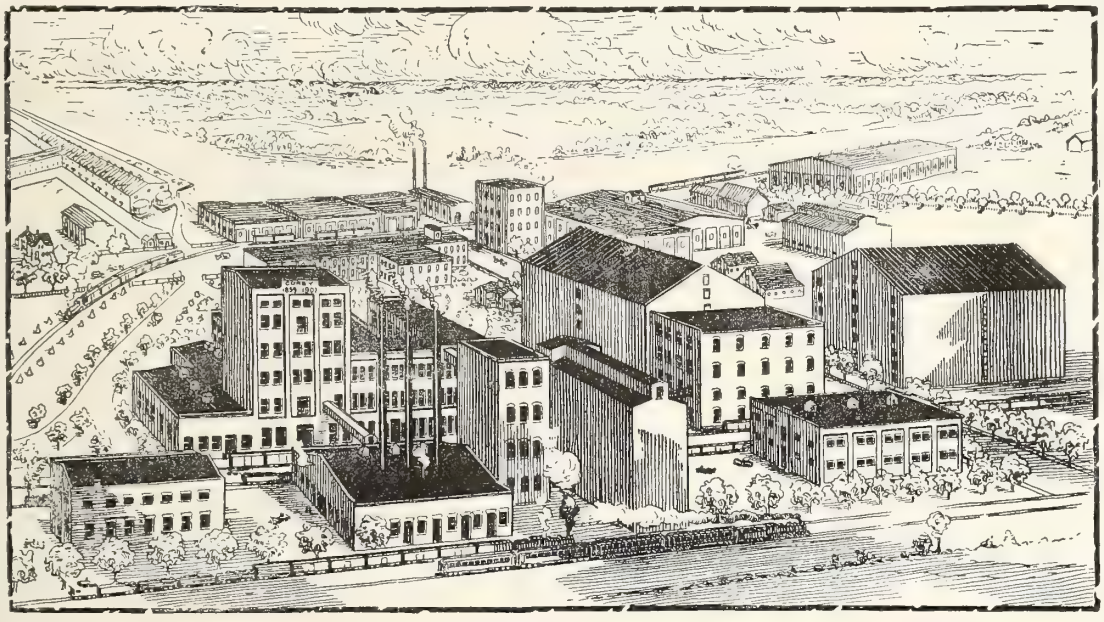
"And at such a prosperous time as this we are compelled to close down, just because the workers will not make pianos at a rate fast enough to enable us to sell at a profit. The output per man is so small in comparison with what it used to be that we lose money on every instrument we turn out.

"If the workers would only increase their output the whole trouble would be solved. Under-production to-day is the curse of industry, and under-production is practised because trade unionists have always had before them the fear of unemployment. To-day, however, there is no danger whatever of unemployment. We are inundated with orders, and there is ample work for a long time to come.

"The present methods of workers are killing the goose that lays the wonderful golden eggs, and what is true of the piano trade is just as true of other businesses. If output were increased there would be no further need to worry about the value of the British pound in America; that problem would right itself at once.

"The whole world is crying for British manufactured stuff, and the workers are denying that demand by producing less per man than ever. We should be exporting as hard as we can, but instead the whole system seems to be to kill exports and to force the home buyer into paying exorbitant prices.

"Why is America to-day the richest country in the world? Because during the war she exported, exported all the time.



Ethyl Alcohol 65 O. P.

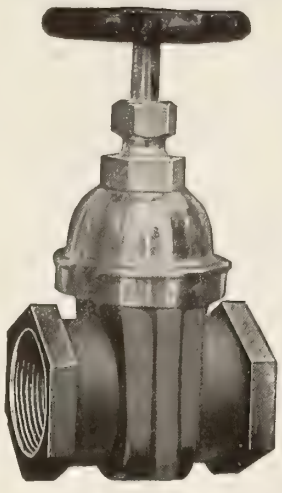
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She is the great creditor nation. If England were to do the same she would right her position at once and become a great creditor nation. That is the bottom of everything.

"Instead of doing so, however, the workers are restricting their output, and the consequences are all too evident. I have no objection at all to high wages, but the only thing that makes them possible is adequate output on the part of the recipients. Without that output, the wages cannot be paid, except by means of a price for the manufactured article that prohibits us from competing in the open market.

"How is it that America has done so well in what was once our overseas market? For two years she was out of the war while we were sending our best men to fight or to manufacture munitions. That gave her a great opportunity, but other factors count now. The Americans receive high wages, but in return they produce the utmost possible work.

"As a result, the output in many American factories is one piano for every two men. Our experience is one piano for every 26 men. How can we compete on such terms?

"We have to meet Japan, too, with its cheap products that are the result of low wages, and Holland, which has become particularly enterprising.

"The competition of Germany must not be overlooked. Germany is manufacturing pianos as fast as she can. She has made up her mind to re-establish this wonderful industry of hers. So far the competition is not keen, but there is not the slightest question that it will come. In this connection the low value of the mark outside Germany will operate very seriously against us.

"Increased production is our only remedy for existing troubles, and if the workers do not realize it we shall go from bad to worse. In return for it the employer will not cavil at high wages, for he will then be able to pay them without losing.

"I am not against trade unionism, for I know how much good it can do. What I regard as a very real danger, however, is trade unionism badly applied, as it certainly has been in the works of John Brinsmead & Sons.

"I think that the circumstances which have compelled us to close down constitute a great warning to the workers of the country.

"It does not mean that the firm is approaching liquidation. There is no question of that. We still have our assets, but we have decided to keep them instead of frittering them away in piano making. We are leaving that now, and we shall never return to it under the unprofitable conditions that exist to-day. Our efforts will be in other directions.

"We have to sacrifice a great business that is world known, but there is no alternative. Decreased output has killed it."

New Abattoir Started

Mid-West Packing Co., Limited, Take Over Brewery Building in Moose Jaw

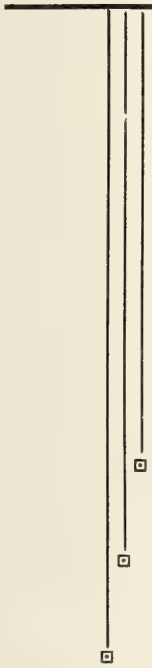
The premises in Moose Jaw, Sask., formerly occupied by the Moose Jaw Brewery have been taken over by the Mid-West Packing Co., Limited, a new company organized by L. B. Edmondson, formerly manager of Gordon, Ironside & Fares Co.; Robert Cruickshank and W. F. MacBean. The company have an authorized capital of $175,000. The plant will be opened as soon as the necessary alterations can be made.

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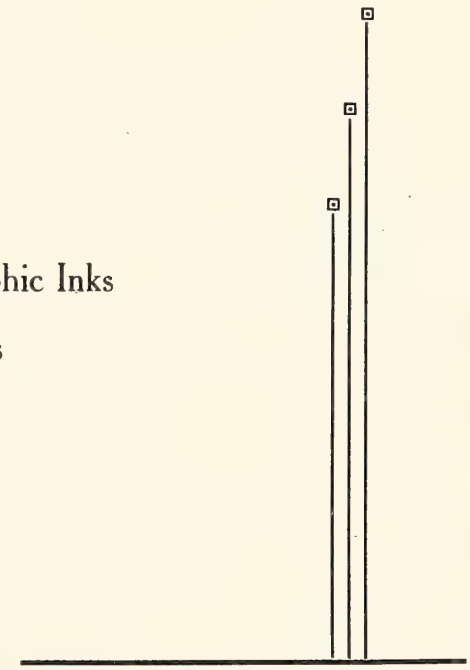


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A Maritime Chair Plant*

Description of the Industry at Bass River, N.S., which, Despite Handicaps of Distance from the Railways, is Successful

By GLADYS M. LEWIS
Dalhousie University, Halifax, N.S.

The only chair-manufacturing plant in the Maritime Provinces is situated in the little village of Bass River, Colchester County, Nova Scotia. Bass River is a very pretty place, flanked on one side by the Cobequid Bay, and on the other by the Cobequid Mountains, with their beautiful forests and their lakes teeming with trout; while winding through the middle of the village is the little river to which it owes its name. The fact that Londonderry, the nearest railway station, is fourteen miles distant makes the truckage problem a serious one, especially in winter, but the business has been worked up until it is quite a paying one.

The Dominion Chair Company, as it is called, started operations in 1860. At first they manufactured other furniture as well, but of late years they have specialized in chairs only. Four times the factory has been rebuilt and enlarged each time, until now the company employs about seventy-five men (not including the men who work in the woods), and the factory is fairly well equipped with modern machinery. Of course it cannot be compared in size and machinery with the large chair factories in Ontario; but considering the distance which the chairs have to be trucked before they can be put on the cars, and the foreign markets to which they are shipped, the Dominion Chair plant is quite remarkable.

The stock used is hardwood lumber, birch, beech and maple, secured from the mountain forests. The curly or bird's-eye maple is very pretty, but on account of its tendency to have an unsound or dark-colored core, it is not as good lumber as birch, which is good, clean wood throughout. Moreover it (birch) is very tough in texture and capable of bearing shocks. Beech, although not remarkable for either strength or durability, is considered more practical for turned stock such as rungs, posts, etc., as it works better in green condition. When beech cannot be obtained in sufficient quantities, maple or birch is used. Hardwood grows on drier and higher ground than spruce or fir, and when the land contains about seventy-five or eighty trees per acre, it is considered well wooded. The Dominion Chair Company get most of their lumber from their own land. They do not cut trees that measure less than twelve inches in diameter at the base. Smaller logs can be utilized in the factory, but it would be a mistake to cut their own timber too closely.

Before the war, Dominion chairs were in every continent, but the principal foreign markets were the West Indies, South Africa, Australia, South America and Ireland. The embargoes imposed during the war changed matters, and at present the chairs go mostly to Newfoundland, the West Indies and Canadian markets. The number of chairs manufactured in this factory per year runs from eighty thousand to one hundred thousand.

There are numerous different styles of chairs manufactured in this factory, and some are treated differently, but all go through the same general process. Besides the plain wooden chairs, they make chairs with cane seats, leather

* This article forms part of the INDUSTRIAL CANADA Prize Essay written by Miss Lewis. The portion dealing with the process of manufacture has been omitted.

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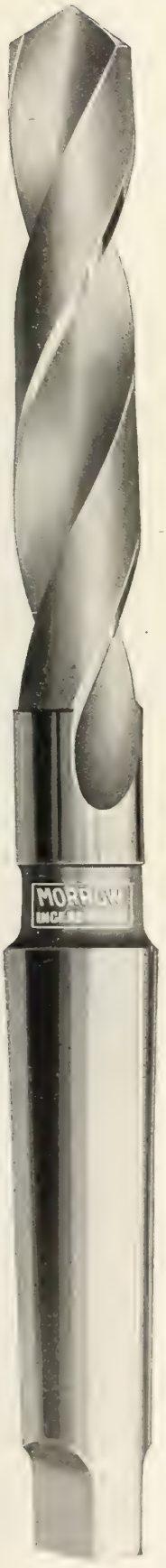


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seats and veneer or perforated seats. The material for these is imported from the New England States. The veneer seats are made in Canada, but the Company found they could import them to better advantage. At one time they used a considerable number of these, but have not found them satisfactory these last few years. They are made of three thicknesses, and the air gets in through the perforations, causing them to crack and go to pieces. The cane used to be imported in large bundles. The framework for the seat was made in the factory, in four pieces, and put together with wooden pins, since this way was found more solid than with glue. Then they were sent out for the people around the country to weave the cane into them. In late years, however, as country people have become more prosperous, it is impossible to get enough workers to supply the demand, so they buy the cane already woven in webs the right width and from one hundred to two hundred yards in length. This is put in in the factory. The seats made in this way are, as one would expect, not nearly as good as those in which the cane is woven by hand.

Until this last summer, the chairs were trucked all the way to Londonderry station, about fourteen miles, with horses, two teams making a trip each per day. This was very laborious work, especially in the spring and fall, when the roads are very bad. This summer, however, they have been using an auto truck, which easily makes three trips a day. Of course this truck can be used only during six or seven months of the year, when the roads are good. The rest of the year they will have to go back to the horses. They are the only solution of the problem until the Government carries out its promise (first made about twenty years ago and renewed before every election time since) of building a railroad along the shore from Truro to Parrsboro'.

Whether this promise will ever be fulfilled or not remains to be seen, but it certainly would be a great thing for the Dominion Chair Company if it should be. They would be better able to meet competition, as they could put their chairs on the market much cheaper than they can at present.

Honor for Amherst

Piano Manufactured in Nova Scotia Town Becomes a Royal Present in England

Canadian industry in general and the Amherst Pianos, Limited, Amherst, N.S., in particular, have been honored by the selection on the part of Queen Alexandra, of an Amherst piano as a birthday gift to the Princess Royal. The Princess Royal and party personally visited the piano warerooms in London recently opened by the company and made her own selection. The piano is now in her private reception room, where she receives her personal friends. She has christened the particular style of piano she selected the "Princess Royal" and has authorized the company to use her name in recommending the piano, creating them manufacturers "By Royal Appointment."

To mark the achievement, the Board of Trade of Amherst recently tendered a tribute to the management and craftsmen of Amherst Pianos, Limited, this taking the form of a public meeting at which a congratulatory address and presentation was made to the workmen. The address emphasized the way in which Amherst products were attaining a world-wide distribution and reputation and complimented the men on the skill, ambition and patriotism that they had evinced in their work. Each employee was given a neatly-engraved card and a five-dollar gold piece.

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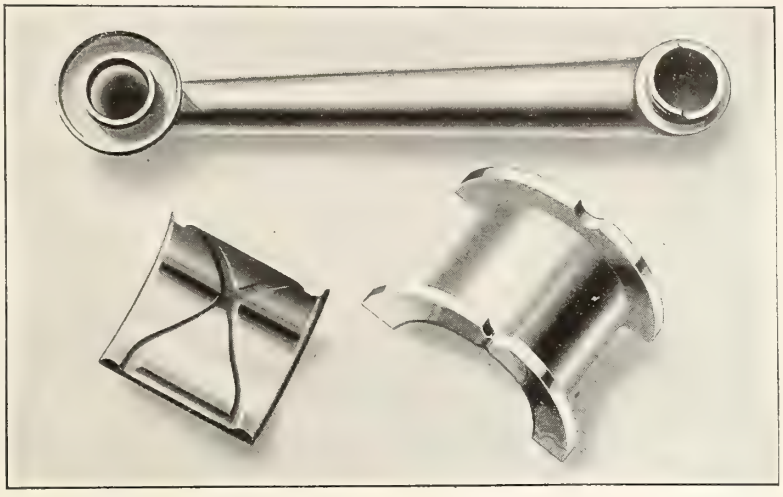
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What the War Trade Board Accomplished*

By J. H. WILKIE
Secretary of the Board

NOW that the time has come for the dissolution of the War Trade Board of Canada, the winding-up of its affairs discloses the fact that in supervising, controlling and aiding Canadian industrial effort from the time of its appointment in February, 1918, the Board was able to do service of international importance and magnitude at a profit to the country. The Dominion Government advanced $150,000 to the Board to enable it to carry on, but its balance sheet shows the expenditures for all purposes to have been little more than $144,000, and its receipts to be more than $260,000. Already the Board has paid back to the Dominion Government $220,000, and the remaining $40,000 will go back soon.

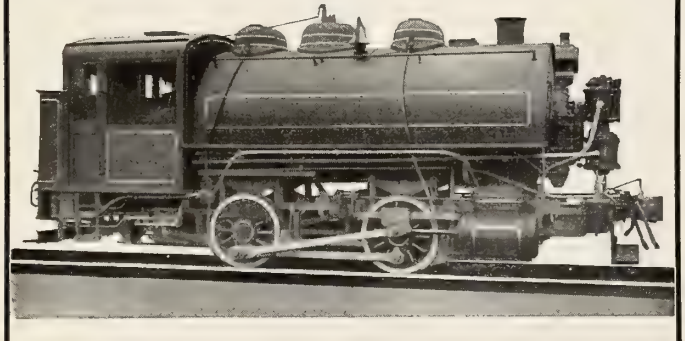
The Canadian War Trade Board was born of a crisis. Until the United States entered the war Canada had been able to obtain raw materials and half-finished products necessary in the munitions industry without difficulty from her southern neighbor. Afterwards the situation changed by reason of the fact that the United States immediately began to conserve every raw material and product which could be used in the war. To present her case effectively, Canada had to organize on national lines. The two countries were interdependent, American industries needing nickel matte, asbestos, pulp and power from Canada, and Canadian, requiring pig-iron, iron ore, steel sheets, coal, cotton, etc., from the United States. By both countries appointing a War Trade Board composed of outstanding business men in both countries, and by means of a Canadian War Mission established in Washington, the two countries were able to present one industrial front to the enemy and still preserve the national interests intact.

Drastic elimination of non-essentials had to be the first order of the day, so that the railroads of the continent and the shipping of the world would be able to devote all their power and space to carrying necessaries and to keeping the Allied war effort up to one hundred per cent. The Canadian Board had to see that no company imported any material when stocks in Canada could be utilized for its needs. This was not only to fulfil its obligations to the United States War Trade Board, but to keep down imports to the lowest possible figure so that Canada's trade balance with respect to the United States should be as little adverse as possible. For the same reason a number of imports were placed on the restricted list.

Every day from all over Canada there came anxious men and constant streams of letters and telegrams informing the Board as to stocks of raw materials on hand, and explaining the needs. The War Trade Board's duty was to see that the materials were forthcoming, if possible, and to take whatever measures were necessary to secure essential raw materials, whether from Canada or the United States or elsewhere. In following out its duties it had to purchase and distribute tin plate in Canada; it had to negotiate for the re-opening of dormant blast furnaces and the construction of new under-

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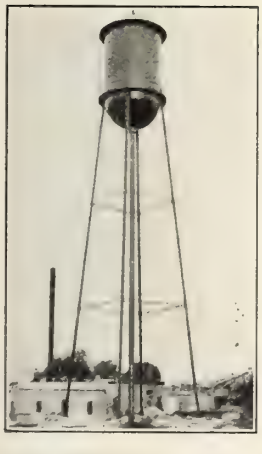
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takings for the production of pig-iron in Canada as well as getting the huge supplies required from the United States. It had to control the sale, purchase and use of platinum. It had to finance the purchase and allotment through the Wool Commission of 46,208 bales of Australian wool weighing 15,573,542 pounds and valued at ten and a half million dollars as well as five and a half million dollars worth of tops and noils from the United Kingdom. It was given power to pay bounties on the production of linen yarns in Canada. It was given control of production and distribution of iron and steel and their products in Canada, and it was empowered to take over and carry on the management of chrome ore producing properties for a period of five years. Besides this, the Board had to be a clearing-house for industrial information to manufacturers, and it had to carry on its duties by means of constant communication with the various industries, either individually or through such bodies as the Imperial Munitions Board, the Canadian Wool Commission, the War Purchasing Commission, the Canadian Tanners' Council, the Canadian Pulp and Paper Association, and the Canadian Wool Growers' Association. But for the existence of such a body, there were many raw materials and products which Canadians could not have secured at all as the British, United States and Australian Governments would not have permitted their shipment but for assurances as to the use to which they would be put or of a substantial cash advance. The shortage of shipping made it necessary in some cases to secure a vessel to go to South America or some other country to get materials urgently needed in Canada, and only a Government body could have induced the Admiralty to permit it.

The securing of steel plates for Canadian shipbuilding industries was one of the Board's most arduous and continuous tasks. Profiteering in steel plate and boiler tube stocks was sternly checked in the cases where complaints were well founded. Canadian steel companies were induced to make all the car plates necessary for the Government's car programme. The pyrites exports were increased to meet the needs of the sulphuric acid makers in the United States. Nitro-glycerine was conserved by restricting the content in commercial explosives. The commandeering powers of the Board were not often exercised, the possession of the powers being amply sufficient to obtain the ends for which it was created without going to the limit of its authority. Most of the money made by the Board was in connection with its wool purchases. The money obtained for the tops and noils from the United Kingdom it sent to the British Treasury.

At the time of its appointment, the War Trade Board consisted of the chairman, Sir George E. Foster, Minister of Trade and Commerce—though he was replaced during a long vacation and when absent in Europe by the Hon. A. K. Maclean, the vice-chairman—Mr. F. P. Jones, and the following members. Mr. C. B. McNaught, Toronto; Mr. J. W. McConnell, Montreal; Mr. J. H. Gundy and Mr. Joseph Gibbons, Toronto; Sir Hormisdas Laporte, Montreal; and Mr. C. A. Magrath, Fuel Controller, Ottawa. The secretary was Mr. Wm. K. Trower, and the assistant secretary, Mr. J. H. Wilkie. There was no change in the membership, though Mr. Wilkie later became secretary. With the signing of the armistice on November 11, it was no longer necessary to control exports except to enemy countries, Northern European neutrals and to parties on the statutory black list. On January 20, 1919, all restrictions were removed, but on March 1st they were reimposed as far as neutral countries were concerned in order to co-ordinate Canadian export policy with that of Great Britain and the United States. With the proclamation of peace imminent the Board will be laid away in an honored grave, while its personnel is relieved to go back to business interests neglected at the country's call



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Trade With British Guiana

Canada Ranks Next to Great Britain and the United States in the Volume of Business Done with British Guiana—Exports to this Country are on the Increase

From an Official Report

The following is an extract from an official report issued on the trade of British Guiana. While it is true that the imports from Canada show a small increase, the fact that Canada is also one of British Guiana's best customers, that she is British, that preferential rates of duty are offered on some lines of Canadian goods, that branches of Canadian banks are established there, and that there is direct steamship communication between the two countries should make that market capable of much fuller development than has yet taken place.

The Commercial Intelligence Department of the Canadian Manufacturers' Association will gladly give further information on the classes and kinds and values of goods imported into British Guiana.

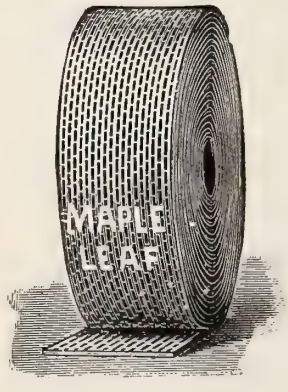
ALTHOUGH there was a considerable decline in the exports of British Guiana in 1918 as compared with 1917, general commercial conditions were good and merchants experienced a highly satisfactory year. Prices of exports continued high, easily offsetting the loss in production and making money fairly plentiful among the inhabitants of the colony, enabling them to purchase more extensively as indicated by an increase of $2,344,809, or 16 per cent., in the imports for the year. The prosperity of local industries during the war has resulted in a freer circulation of money among the various classes, and although the price of many commodities and the cost of necessities of life have risen enormously in recent years, yet there has been a surplus of money which has been spent to a great extent in apparel of all kinds and articles of luxury, such as motor cars and jewelry. This spending tendency would have developed further but for the fact that during a considerable portion of the year, owing to lack of tonnage accommodations, non-essential articles, such as carriages, wagons, motor cars, motor cycles, musical instruments, furniture, travelling bags, trunks and valises, baskets, chinaware, earthenware and pottery, glassware of all kinds, perfumery, plate, plated ware, and toys were not allowed to be imported.

Trade with the United States continued to increase, the imports from that country in 1918 being nearly equal to the total imports of the colony in 1913. Up to 1917 England held the lead in imports, but for the past two years it has been unable to supply the usual quantities, so that now the goods received from the United States amount to nearly double those from England. Many new lines of American goods have been introduced, their merits have become well established, and it is believed that a considerable portion of this gain in trade will be permanent.

Financing Trade

Little or no difficulty has been experienced in financing trade, although exchange has been above normal and the cost of remitting has been from 1½ to 3 per cent., unless merchants had balances in New York. There were no failures of consequence and merchants have been able to meet their obligations promptly.

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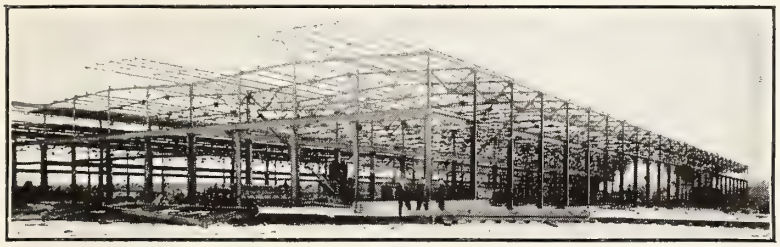
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The next table shows the extent to which each country participated in the foreign commerce of British Guiana during 1917 and 1918:

Countries	Imports from 1917	Imports from 1918.	Exports to 1917	Exports to 1918.
British East Indies	$278,024	$1,000,053	.....	.....
British West Indies	512,725	777,187	$1,708,229	$1,125,676
Canada	2,113,199	2,612,080	7,527,968	5,641,601
Denmark	19,046	5,828	.....	.....
Dutch Guiana	13,246	179,899	1,026,218	928,408
France	38,146	39,131	5	.....
French Guiana	9,560	19,249	194,994	235,390
Netherlands	74,192	59,380	2,056	.....
Newfoundland	75	.....	.....	3,476
Norway	320	.....	.....	.....
Portugal	26,917	15,826	.....	.....
Portuguese possessions	28,617	1,321	.....	.....
Spain	13,982	10,692	.....	.....
Sweden	3,195	614	.....	.....
United Kingdom	4,560,978	4,189,904	9,171,874	7,819,634
United States	5,910,238	7,252,721	770,519	974,199
Venezuela	92,858	90,136	6,515	4,272
All other countries	221,522	37,928	308,130	186,373
Total	$13,947,440	$16,292,249	$20,716,508	$16,919,029

The United States continued the increase in imports noted in 1917, the gain in 1918 being $1,342,483, or 22 per cent. The United States supplied 44.5 per cent. of the total imports, the United Kingdom 25.7 per cent., Canada 16 per cent., and other British possessions 10.8 per cent. The export trade, however, was largely with the United Kingdom and Canada, the United States taking only 5.7 per cent. of the total exports as compared with 46.2 per cent. by the United Kingdom, 33.3 per cent. by Canada, and 6.6 per cent. by other British possessions. The total trade of the colony was divided as follows: The United Kingdom 36 per cent., Canada 24 per cent., the United States 24 per cent., other British possessions 6 per cent., and all other countries 10 per cent.

The principal products of British Guiana are: Sugar, rice, coccanuts, ground provisions, coffee, rubber, cocoa and limes.

Returns to Canada

R. W. Ashcroft Becomes Director of Publicity of the Ames-Holden-McCready System

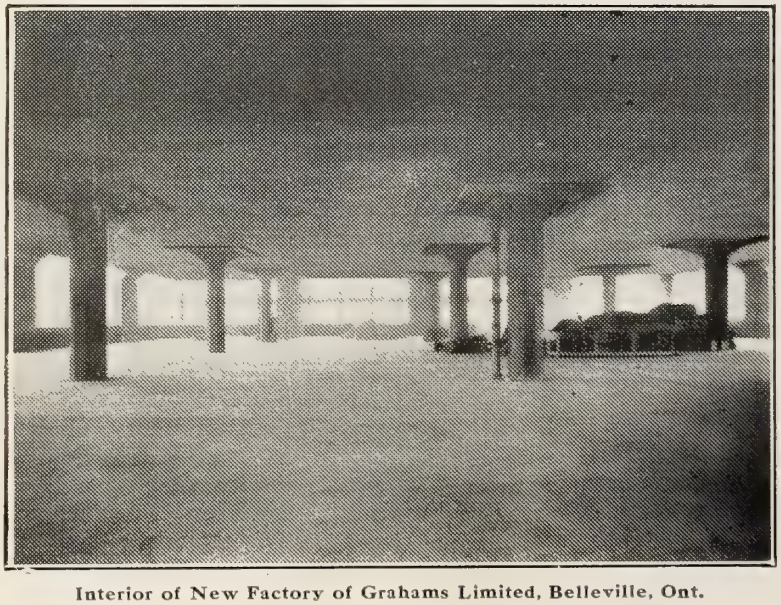
R. W. Ashcroft, for the past four years advertising manager of the United States Rubber Company, with headquarters in New York, and previously advertising manager of the Canadian Consolidated Rubber Co., Limited, a subsidiary of the U. S. Rubber Co., has been appointed director of publicity of the Ames-Holden-McCready System, and will presently return to Montreal to take up his new duties.

T. H. Rieder, president and managing director of the Ames-Holden-McCready System, states: "Mr. Ashcroft was associated with me as advertising manager when I was president of the Canadian Consolidated Rubber Company; and did such excellent work that the American owners of the company asked him, four years ago, to go to New York and take charge of the advertising and publicity of the United States Rubber Company and its allied companies.

"Mr. Ashcroft has always been a believer in Canada as a potentially self-contained industrial nation, and is of the firm opinion that to-day, more than ever before, we are in a position to ourselves develop our own industrial and other resources without recourse to alien assistance. He believes, as all other far-seeing Canadians do, in the support of Canadian-owned, Canadian-manned, Canadian-supported business enterprise, equipped to take care of our domestic needs for any essential product and to compete in foreign markets on a basis of equal or better quality and price.

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SIBERIA MEETS SERIOUS PROBLEMS

Two obstacles to the progress of Eastern Siberia are the inefficiency of the Trans-Siberian Railway and the declining rate of ruble exchange. Against these obstacles the country is bravely contending and in spite of them trade, both import and export, is on the increase.

By E. I. Omeltchenke.
(From the "Pan Pacific Magazine.")

The conditions of transportation and of ruble exchange form the key to the business situation in eastern Siberia.

The transport conditions on the Trans-Siberian Railroad seem to be improving. The average daily shipments from Vladivostok terminal, via Manchuria, in June amounted to about 600 tons, while in January only 90 tons were shipped daily. This improvement is due mainly to the natural conditions of weather, to the coming of the warm and hot season, when the percentage of disabled locomotives usually decreases.

From a broader point of view, however, the service of the Trans-Siberian Railroad must still be considered as very far from its normal efficiency. Under the Czar and Kerensky Government, and even under the Bolshevik rule, the Trans-Siberian Railroad was operated better than it is operated now, after six months' work of the Inter-Allied Railroad Commission; as for example: In 1916 the average daily shipment from Vladivostok terminal was about 2,000 tons, while at present the average daily shipment is only about 600 tons. Still more important is the fact that there is but little hope for better efficiency in the near future.

L. A. Oustrugoff, Minister of Ways and Communications of the Kolchak Government, has recently asserted that it will take an indefinitely long time before the Trans-Siberian Railroad will have resumed the carrying of normal traffic.

Under such circumstances one cannot expect speedy relief for the freight congestion in Vladivostok. The conservative Siberian authorities have calculated that it would take about three and a half years to rid the Vladivostok harbor of its tremendous stock of goods, provided the present conditions of transportation do not become worse.

The ruble exchange situation is also discouraging. The rates of rubles are steadily going down. In Vladivostok, in the month of April of this year, one dollar bought 19 to 20 rubles. Late in July this rate declined to 45 rubles per dollar. There were some days when the rate of exchange went down to 60 rubles and even in some private transactions to 80 rubles per dollar. These rates were not steady, but subject to frequent fluctuation.

There are many causes for such a decline of ruble exchange, apart from purely political considerations.

The prohibition of the importation of rubles by France, England, and the United States is one of them. It created an artificial isolation of the Siberian money market, depreciated the Russian currency, established two absolutely different rates for rubles; one, within the above-named countries; the other, in Siberia. The latest quotation of rubles in Vladivostok was about $1.25 per 100, while in New York it was quoted as $6.20 to $6.30 per 100 rubles.

The wrong financial policy of the Kolchak Government also contributed a great deal toward the decline of rubles. The Bank of State undertook such measures as could be successful only under a very strong and settled Government. Siberia had three main types of paper currency; Czar rubles, Kerensky rubles, and Siberian rubles. The Czar and part of the Kerensky bank notes were recognized in the foreign markets, but Siberian rubles were not. They were circulated only in Siberia and with a large discount, when compared with Czar and Kerensky currency.

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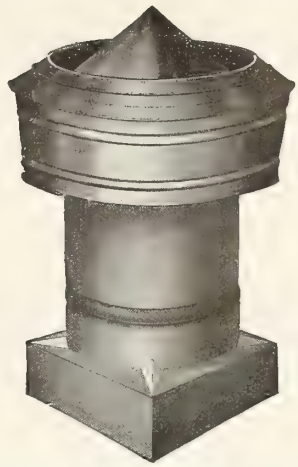
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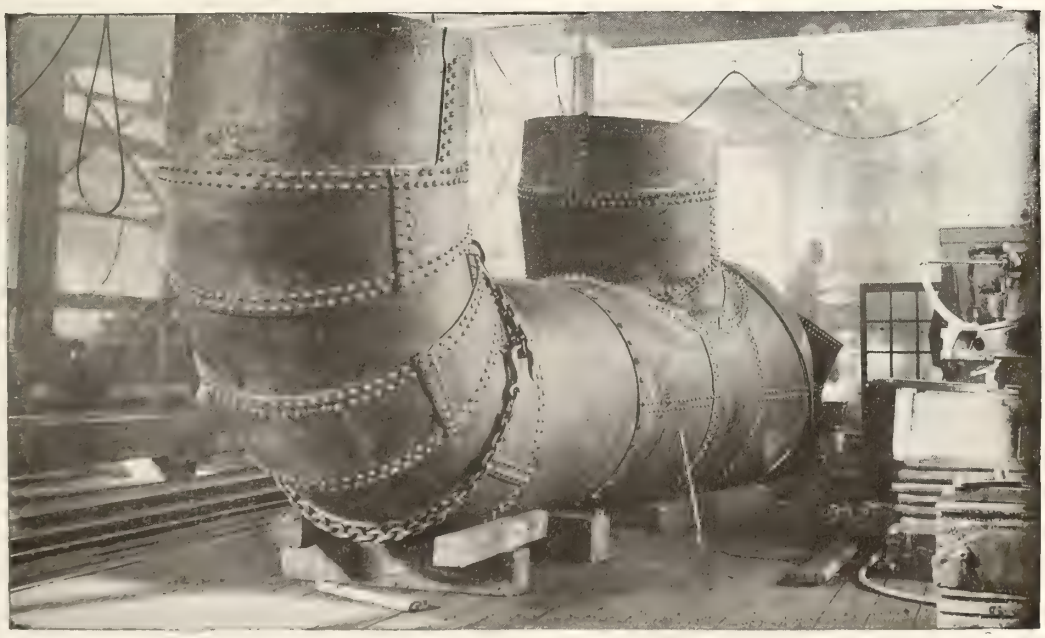
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The Ministry of Finance of the Omsk Government undertook the redemption of the Kerensky rubles of small denominations, and carried on this measure on conditions which were practically equivalent to the confiscation of Kerensky currency from the holders. As a result of this reform confidence in Kerensky currency was lost, the Kerensky bank notes declined and the Czar rubles went down in sympathy, not only in Siberia, but in all markets.

The congestion of the main terminal, the traffic difficulties and the decline of rubles make the commercial expansion in Siberia hardly to be expected. Nevertheless, the fact is that very large foreign commerce has recently developed through Vladivostok; larger than one usually imagines in America. The great economic forces of Siberia are continuing to work out their own means of attracting foreign goods and of exporting Russian merchandise, regardless of many embarrassments.

According to recently published figures, importation to eastern Siberia is now carried on on a larger scale than in 1914, when the influence of war was felt in the Vladivostok harbor. During the first quarter of 1919 about 90,000 tons of different goods were imported; the main articles were sugar, railroad equipment, coal, textiles, lubricating oils, foodstuffs, shoes and leather, fresh fruits, paper and paper goods, metal manufactures, chemicals, machinery and agricultural implements and liquors.

Still more interesting is the quite considerable export from Siberia.



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EMPLOYEE REPRESENTATION ON TEST

How the works' councils of the International Harvester Company carried on during a time of great industrial unrest and proved their value to management and employees alike. The fundamental point in our industrial trend to-day is the representative direction of industry.

By Cyrus McCormick, Jr.
(From the "Manufacturers' News")

In the recent labor difficulties in Chicago, employee representation was forced to stand an acid test. We have eight plants in Chicago, in seven of which are works councils. Due to various causes, such as strikes in large neighboring establishments and the presence of a large number of non-American groups of employees, a strike was begun in that plant where there was no works council. When these men, without making any demands, were out upon the street, they proceeded in a body to adjacent factories where there were works councils. The day before this took place the councils in these other plants had negotiated a settlement between the men and the company, which satisfactorily adjusted all questions at issue. In spite of this adjustment, the intimidation of the large number of foreign employees from the striking plant, and the slugging which immediately took place, caused the works councils in four of the remaining plants to advise the cessation of operations. The company accepted the request, and for three weeks these four plants were closed down. The period would not have been so long had there not intervened the terrible race riots and a street car strike. When conditions were right and the works councils felt it desirable and safe to resume operations, the plants were re-opened. It is at least significant that the resumption of work took place with hardly a ripple of excitement, and with no violence of any kind. In two other plants the adjustment was never questioned from the beginning. We therefore found, as a result of this labor difficulty, that our works councils were stronger in the minds of the men than ever before. They stopped work in the plants when it was dangerous to continue to operate. They opened the plants when it was safe to do so (even taking it upon themselves to arrange for the preliminary police protection) and in every way proved themselves worthy representatives of the best traditions of American industry.

Employee representation has spread more rapidly in England than it has in this country, but it has taken a different form. Much has been written about the so-called Whitley plan. That may be desirable for England, but it will not do for this country. Here neither industry nor labor is sufficiently organized to set up the elaborate system of councils required under the Whitley plan. Nor is our Government sufficiently versed in the handling of industrial matters to take as important a part in industrial councils as is required under the English system. Finally, the Whitley plan has organized British industry into two opposing camps, whereas the American system of employee representation is based solely upon mutual co-operation and a substitution of vertical for horizontal divisions. Class prejudice has no place in this country, either in society or in industry.

After all is said and done, the fundamental point in our industrial trend to-day is the representative direction of industry; all else is really detail. Profit sharing may come when it is ripe for it to do so. Government action or rearrangement of our programme of consumption may make it possible for employees to be free of fear of unemployment. Education may raise the standard of working conditions to a real art. But if workmen are allowed self-government they and their employers together can work out these programmes.

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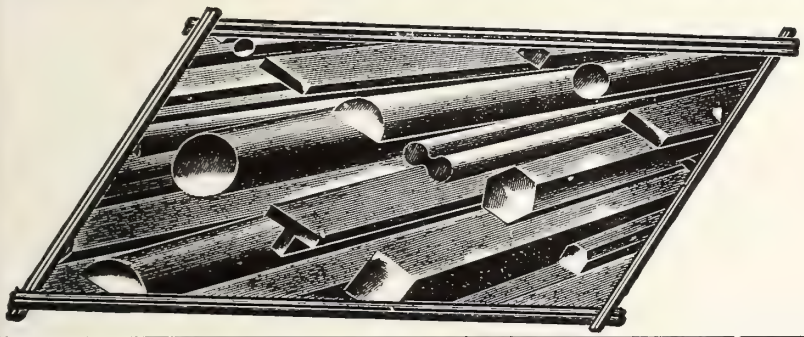
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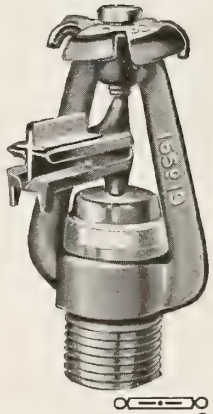
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BIG PROJECTS IN LATIN-AMERICA

It is estimated that it will take two billion dollars to carry through the great enterprises needed for the adequate development of South America. The most important of these would be the building of a railroad diagonally across the continent, a work that would cost a hundred million more than the Panama Canal.

By S. P. Venner.

(From the "Pan Pacific Magazine")

When the world settles down to business after the war is finally out of the way, South America is going to offer opportunities to young men of big vision such as seldom have been afforded to empire builders in all history. The stage is set. The Panama Canal puts Pacific ports closer to the headwaters of the Amazon than London is to the source of the Nile.

There are four big things to be done in South America. I mean "big" in the sense requiring men like Rhodes, Morgan, Harriman and Hill to carry them out in the first category of magnitude. These are the Buena Ventura-Buenos Ayres Railroad diagonally across the continent; the opening of the eastern slope of the Andes to white colonization and settlement, the proper sanitation of the tropical ports and centres of the continent and the development of aerial transportation.

A volume could be written about each of these, but none of them can be carried out without big men plus big money. Of these the men are the more important.

Some of these men are being developed in South America now, but they are necessarily limited to national lines in each country, while the largest problems are international in their scope and it is extremely difficult for a citizen of one republic to exercise a determining influence outside of his own country. This is why there is a demand for leaders in co-ordinating these international undertakings from the outside.

The big railway will cost $100,000,000 more than the canal did. The opening of the upper Amazon would follow this road and would require a total expenditure of about $1,000,000,000 to make it effective so that it would be self-supporting and a part of the productive assets of the world.

The sanitation of these two enterprises would cost, the first about $20,000,000, the second $50,000,000, while the permanent clean-up of existing insanitary ports and centres will require a total capital outlay of about $150,000,000, and an annual budget for maintenance of about $10,000,000, representing a capital necessary to produce that income of $200,000,000.

To get aviation well under way, so as to realize a weekly hydroplane service over the Amazon, the Orinoco, the Magdalena and the La Plata rivers and their main tributaries, without including dirigibles and airplanes for land service, an initial capital for the whole continent of at least $300,000,000 would be required.

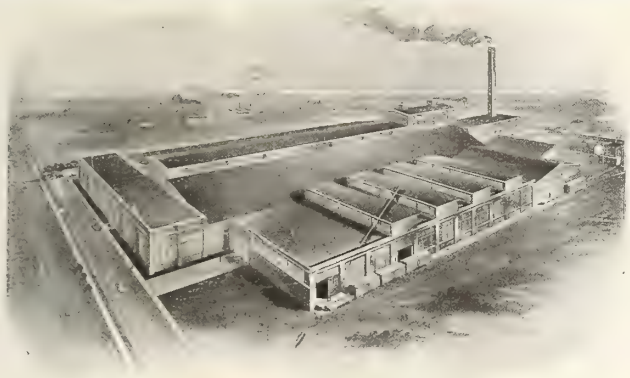
Thus there is needed for the co-ordination of the big international enterprises in South America in this generation about $2,000,000,000 in all—less than half of the Victory Loan. The resources which might be pledged to support this outlay are potentially enormously in excess of this sum. South America can pay for it all. What is needed is the men to inspire confidence that the resources may be made to yield the return.

The plant of the Tilbury Brick & Tile Company, Limited, Tilbury, Ont., which was destroyed by fire on March 4, will be restored at once. The new dryer will be about 50 x 120 feet, and the engine room, 50 x 80 feet. Capacity will be from 60 to 100 tons of clay products per day.



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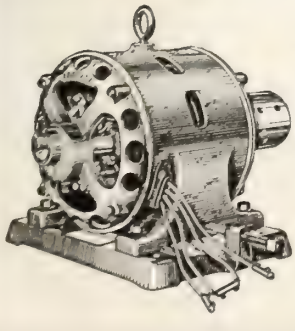
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1 10 hp. C.G.E., 1200 rev., pulley, rails, starter N.V.
1 10 hp. F.W., 900 rev., pulley, rails only.
1 10 hp. T.H.E., 1800 rev., rails, pulley, starter N.V.
1 1 hp. T.H.E., 1800 rev., pulley only.
3 15 hp. C.C.L., 1200 rev., pulley, rails, starter N.V.
1 20 hp. C.C.L., 1200 rev., pulley, rails, starter N.V.
1 3 hp. C. Westinghouse, 1800 rev., pulley, rails.
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1 5 hp. 220 volt, 750 rev. C. Westinghouse, pulley rails.
1 15 hp. 220 volt, 750 rev., T.H.E., pulley, rails, starter N.V.
1 5 hp. 220 volt, 750 rev., Westinghouse C.C.L., 750 rev.
1 5 hp. T.H.E., 220 volt, 1500 rev.
2 1 hp. 220 volt, 1500 rev., Westinghouse C.C.L.
1 1 hp. C.G.E., 220 volt, 750 rev.
2 1 hp. T.H.E., 220 volt, 1500 rev.
1 50 hp. C.G.E., 550 volt, 750 rev., pulley, rails, starter N.V.
1 60 hp. C.W., 550 volt, 750 rev., pulley, rails, starter N.V.
1 15 hp. Westinghouse H.S., 550 volt, pulley, rails, starter, N.V.
1 10 hp. Lanch., 550 volt, 750 rev., pulley, rails, starter N.V.
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1 3 hp. T.H.E., 550 volt, 1500 rev., pulley.

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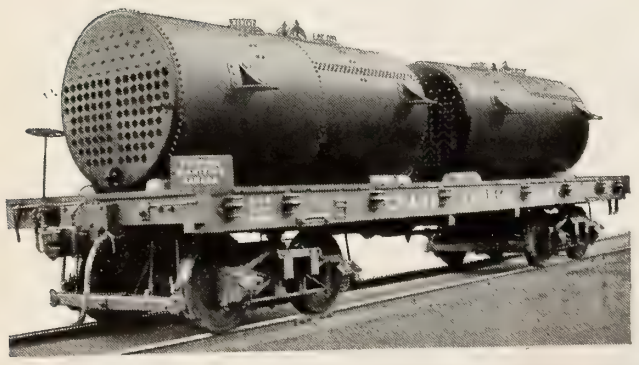
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Book Reviews

Britain's War Organization

British War Administration. By JOHN A. FAIRLIE, Professor of Political Science, University of Illinois. Carnegie Endowment for International Peace. New York: Oxford University Press. 302 pages.

This volume is No. 8 of the series of Preliminary Economic Studies of the War, issued by the Carnegie Endowment. Its aim is to give a systematic and somewhat comprehensive account of the manifold changes in the machinery of governmental administration in the United Kingdom, and its chapters deal successively with Forms and Agencies of Action; the Cabinet; Naval Administration; Army Administration; Munitions and Aircraft; Defence of the Realm; War Relief, Pensions and Prisoners; Trade and Transportation; Agriculture and Food Control; Financial Adminstration and Other Departments. The work has been carefully handled and is written in an entertaining vein. Naturally, it makes no pretence to be a complete account of British war effort, the treatment being limited to the organization of administrative agencies on the part of the central government.

West Africa Cotton

Cotton in British West Africa.. By N. M. Penzer, B.A., F.R.G.S., F.G.S., with an introduction by the Rt. Hon. the Viscount Milner, P.C., G.C.B., G.C.M.G., London. The Federation of British Industries. 5 shillings net.

This is the first of a series of booklets on the raw materials of the British Empire to be issued to the general public by the Intelligence Department of the Federation of British Industries. It is divided into six sections dealing with (1) the history of the industry; (2) the industry in Nigeria; (3) the industry in the other British Colonies, Gold Coast, Sierra Leone and Gambia; (4) the industry in Togoland and the Cameroons; (5) the possibilities of cotton-growing in British West Africa. General statistics and a bibliography complete the contents of a neat little volume, which contains in compact form all that is to be known about the subject. Copies of the book are obtainable from Thomas Murby & Co., 1 Fleet Lane, Ludgate Circus, E. C. 4.

An Educational Conference

Report of the Proceedings of the National Conference on Character Education in Relation to Canadian Citizenship. Held at Winnipeg, October 20, 21, 22, 1919. Price, 50 cents.

To Mr. W. J. Bulman, past president of the Canadian Manufacturers Association, must be accorded the credit for having initiated and promoted the idea of a national conference which would seek to establish a broad general basis on which to develop character and citizenship through education. The idea originated in 1917 and gradually expanded until it reached the proportions of the conference held in Winnipeg last fall. The success of this gathering was signal. Upwards of 1,500 accredited delegates attended, and at no session did the attendance fall below two thousand. As a result of the conference there was created a National Council of fifty members, which will establish a National Bureau for purposes of educational investigation.

The present report is a book of 150 pages, and all proceedings at the conference are recorded verbatim. An exam-



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ination of the table of contents shows that addresses were delivered by a number of eminent educationists and that discussions were led by men and women of outstanding importance in the field of education. It is scarcely necessary to emphasize the value of all this material, and anyone interested in the subject of education will find the report a mine of useful information.

The Labor Problem

Common Sense in Labor Management. By Neil M. Clark. New York: Harper & Brothers. Toronto: The Musson Book Co., Limited. Price, $4.50.

Mr. Clark is the editor of that well-known business magazine, *System*, and this book is the fruit of years of observation and study in the field of employment and industrial relationships. It is a work in which theory and practice are skilfully interwoven, the author's beliefs being illustrated time and again with the actual experience of business managements.

At the outset Mr. Clark emphasizes the changed viewpoint of recent years. The old attitude, which regarded labor as a commodity to be bought, like steel and crude rubber, or which declared that the owner of a business was boss and could do as he pleased, is rapidly disappearing and giving place to a conviction that, after all, the worker has an interest in industry which deserves recognition. It is to various manifestations of this changed viewpoint that Mr. Clark devotes several of his chapters.

The various plans which have been devised for bringing the management and the employee together for the discussion of problems of employment are outlined, the point being made that the workers do not necessarily want to assume any of the responsibilities of management, but merely to see that they are given the chance to achieve satisfaction in their work and its rewards. No one plan is described as superior; each has its good points.

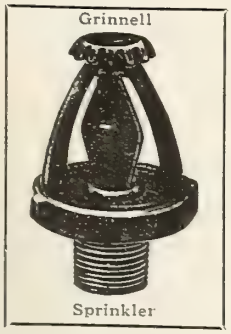
Chapters are given to working conditions and living conditions, the former applying to various phases of the employee's life in the factory, the latter to his home life and recreation. In both instances attention is given to the many plans of social betterment and welfare that have been introduced of late years. The wage question and continuity of employment are each thoroughly discussed, and there is a chapter on the efficiency and value of suggestion systems.

Mr. Clark sums up his argument in a final chapter which he entitles "The Fallacy of Panaceas." Here he demonstrates the need for "frankness, force and justice in management," which are the fundamentals in any plan. "Elemental justice in all the relations of employers and employees, complete frankness in explaining and discussing what is just, and rugged force in carrying out the decrees of justice—that is the policy of management that makes for industrial peace."

"Common Sense in Labor Management" is a book that will keep the employer abreast of the times, and may be commended to all who desire enlightenment on a subject of great importance at the present time.

A Remarkable Chart

The Angus Sinclair Co., New York, publishers of *Railway and Locomotive Engineering*, have just issued a new chart of the Pacific type locomotive. The chart, which measures 44 x 17½ inches, is reputably the most complete thing of its kind that has ever been published. The locomotive is shown in minute detail, with numerical references attached to no fewer than 667 parts. The chart is priced at 50 cents.



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Deaths Among Prominent Manufacturers

A Pioneer Flax Grower

Late James Livingston, Ex-M.P., Was President of the Dominion Linseed Oil Co. and Other Enterprises

The late James Livingston, ex-M.P., of Baden, Ont., whose death occurred on April 14, was one of the pioneers of the flax industry in Canada. He was a native of Scotland, where he was born in 1838, and came to Canada early in life. In 1865, in company with his elder brother, John, he commenced flax growing in Wellesley, and for many years carried on flaxseed and oil manufacturing at Baden. At the time of his death Mr. Livingston was president of the Dominion Linseed Oil Co., besides being interested in the Yale Flax Co., one of the largest concerns of its kind in Michigan. He was for twenty years a member of the House of Commons for South Waterloo.

Was Metal Manufacturer

Late William J. McMartin, of Winnipeg, Had Numerous Interests in the West

The death occurred at Winnipeg on April 11 of William J. McMartin, one of Western Canada's well-known metal men. Mr. McMartin was born at Martintown, Glengarry County, Ontario, in 1870, and after living for a time in Duluth, went to Winnipeg in 1904, where he organized the Winnipeg Ceiling and Roofing Co. He was at the time of his death president and general manager of this company; president of the Edmonton Metal Works; treasurer of the Sheet Metal Co., Calgary; president of the Duluth Corrugating Co., Duluth, and president of the Economy Foundry, Portage la Prairie.

A Model Employer

Late Jacob Kaufman, of Kitchener, was Revered by Many Old-time Employees

On April 20 there passed away at Kitchener, Mr. Jacob Kaufman, one of the pioneer manufacturers of the city and a man who has played an important part in the industrial life of Canada in his day. He was born on a farm near New Hamburg in July, 1847. As a youth he learned the trade of carpentry and at the age of 22 went to Gadshill, a village six miles north of Stratford, where he worked as a sawyer for eight years in the mill of Henry Ratz. In 1877 he moved to the then village of Berlin, which had at the time a population of about 3,500, and built a sash and door factory. This was the nucleus of the present industry and has been enlarged many times. Mr. Kaufman's interest in the lumber business extended to the source of supply and he operated as well saw mills at Rosseau Falls and Trout Creek. He also acquired a charcoal and wood alcohol plant at the latter point.

In 1900 Mr. Kaufman became interested in the Berlin Rubber Footwear Manufacturing Co., and three years later started the Merchants Rubber Co., which in 1906 was sold to the Canadian Consolidated Rubber Co. In 1907 he started the Kaufman Rubber Co., Ltd., which industry has progressed and expanded until to-day it is a credit to the community, and represents a large percentage of the rubber footwear business of Canada. He was largely responsible for the establishment of the rubber industry in Kitchener, which has expanded and at present employs about 3,000 people.

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Glistening snow-peaks ten thousand feet and higher surrounding you—trails to ride, to walk, and to climb on sure-footed mountain ponies—fine roads for driving and motoring—mile high golf courses—opportunities everywhere for the Alpine climber—luxurious hotels at Banff and Lake Louise, and comfortable mountain chalets at Emerald Lake and Glacier, with music, dancing and a gay social life—trout fishing in season, sublime scenery and big game for the camera (and in September for the rifle—camping in regions of unparalleled majesty—these are a few of the delights in store.

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Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

DOMESTIC

389. Agency in Maritime Provinces.—A gentleman in Halifax desirous of getting in touch with manufacturers who wish to be represented in the Maritime Provinces.

FOREIGN

390. India: An old established import and export [illegible] Bombay ask to be put in communication with manufacturers in Canada who are interested in export trade to India. They desire samples and price lists and are in a position to pay cash against documents.

391. India: A firm in India who forward excellent references wishes to be put in touch with concerns in Canada desirous of having representation in that country. They have over twenty years' experience and are in a position to sell large quantities of goods. They are interested in the following lines: stationery, hardware, hosiery, [illegible], textile.

392. Smyrne: A manufacturers' agent in Smyrne who imports large quantities of British manufactured goods would like to communicate with Canadian firms who wish to export to Turkey in Asia.

393. Wood or composition ornaments, etc.—A Liverpool firm asks to be placed in touch with exporters of wood or composition ornaments, carvings and turnings for interior decorations.

394. Plywood.—A Liverpool firm asks to be placed in communication with exporters of the above, for use in the furniture and cabinet trade.

395. Cod liver and other fish oils.—A Liverpool firm asks to be placed in touch with exporters of the above.

396. Plain and fancy mouldings.—A Liverpool firm asks to be placed in communication with exporters of plain and fancy mouldings.

397. Emery cloth and paper.—A Bolton firm, who state they have large connection among consumers of the above, ask to be placed in touch with exporters, for business on a buying or agency basis.

398. Canned fruits.—A Liverpool firm doing a large Egyptian trade, asks to be placed in touch with exporters of the above, with a view to arranging export to Egypt.

399. Import and export agents.—A Liverpool firm of West African merchants, wishes to get in touch with a reliable firm, prepared to act on their behalf as buyers of Canadian products and sellers of palm oil, cocoa, peanuts, mahogany, etc.

400. A Liverpool firm of West African merchants wishes to purchase the following commodities from Canadian exporters for direct export to West Africa; enamelware, galvanized corrugated sheets, asbestos roofing and building material, locks, hinges, furniture fittings, etc., shovels and tools for use in tin mines, galvanized buckets and galvanized wire fencing.

401. Cattle foods.—A Liverpool firm are open for business in all kinds of oil cakes, meals, etc., for cattle food.

402. Wire rods and nails, and wire of all kinds.—A London firm wishes to hear from Canadian manufacturers of wire rods, wire nails, and iron and steel wire of all kinds including wire suitable for the manufacture of wire rope who can offer supplies for shipment to Roumania.

403. Macedonia.—To aid the development of commercial relations between Macedonia and other countries a firm has established a permanent industrial Museum, at Kozani, and request Canadian manufacturers to forward samples or catalogues of all articles suitable for that market. The prices if possible are to be C.I.F., Salonica. The following are some of the more important articles imported to that country: builders' hardware, paints, varnishes, etc. agricultural machinery, planters and seeders, engines and boilers, farming tools, harness and saddlery material, confectionery, sole leather.

404. Cobalt and nickel oxide, etc.—A London manufacturing enterprise wish to purchase supplies from Canada of the following compounds for use in the enamelled ware industry and invite samples and quotations: green nickel oxide, black oxide of cobalt, ferric oxide, copper oxide, chromate of iron, tin oxide, peroxide of manganese (black).

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WRITE

CANADIAN NATIONAL RAILWAYS

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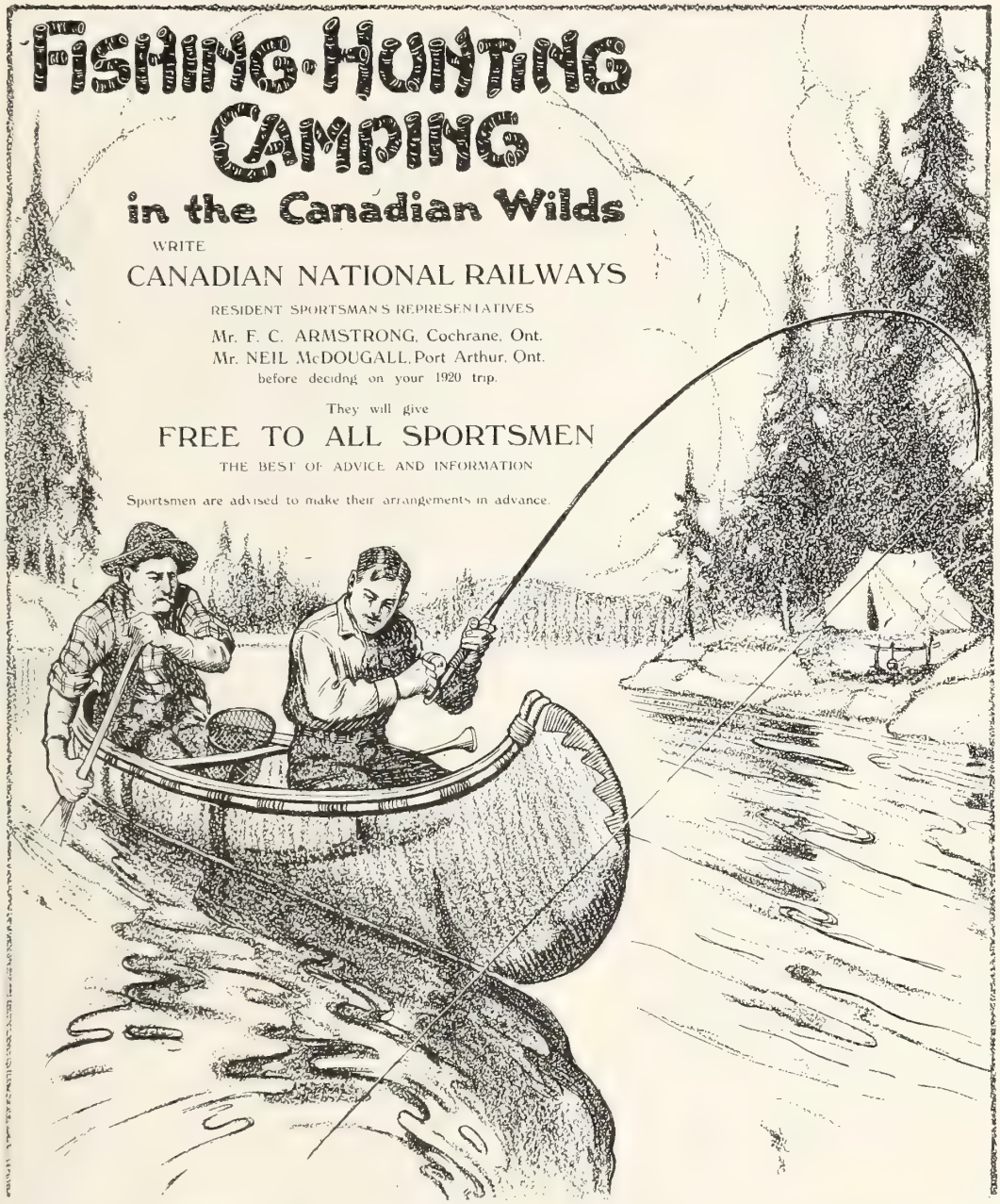
Mr. F. C. ARMSTRONG, Cochrane, Ont.
Mr. NEIL McDOUGALL, Port Arthur, Ont.
before deciding on your 1920 trip.

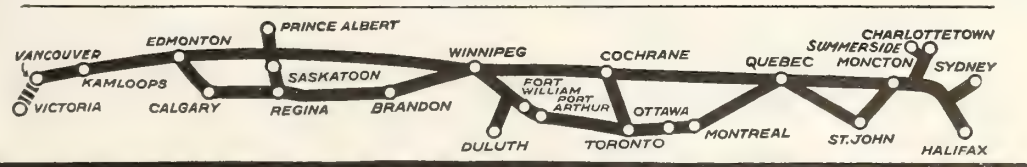
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Canadian National Railways

405. Turned wood boxes.—A London pencil manufacturing enterprise is open to place orders for regular supplies of turned wooden crayon boxes, according to sample in the possession of the Department of Trade and Commerce and invites offers from Canadian manufacturers. 5,000 gross at a time would be ordered.

406. Wooden houses.—A Johannesburg, South Africa, business man, spending several months in London, is considering the purchase of a number of wooden houses of bungalow type of the following nature, and would be glad to receive from Canadian manufacturers plans and lowest prices, preferably C.I.F., South African ports, or alternatively, F.O.B., Canada-Cape Steamers, Canada: 2 bedrooms, living room, kitchen, pantry, bathroom, etc.; 3 bedrooms, living room, kitchen, pantry, bathroom, etc.; 4 bedrooms, living room, kitchen, pantry, bathroom, etc. All rooms to be of fairly good size. The external appearance to be neat and of weather boarding, lined asbestos, or to be covered with asbestos cement sheets internally and externally.

407. Acetic acid.—An Edinburgh firm asks to be placed in touch with exporters of the above.

408. Gramophone motors.—A Glasgow wholesale gramophone factor is in the market for 2,000 motors for gramophone of various types.

409. Confectionery.—A Belfast firm desires to secure a buying or commission agency for high-class lines of confectionery.

410. Hosiery goods.—A Belfast firm, who state that they are one of the largest importers in Ireland of all classes of the above, ask to be placed in touch with Canadian manufacturers.

411. Painters' brushes.—An Edinburgh firm is open to buy the above as soon as exchange conditions permit.

412. Cradle parts.—A Glasgow firm of chair and cradle manufacturers asks to be placed in touch with firms in a position to furnish cradle parts ready for polishing. They require large quantities.

413. West African Trade.—Numerous West African merchants in Liverpool ask to be placed in touch with Canadian exporters of the following materials for direct export to West Africa: enamelware, building materials, canned goods, locks, shovels, and hardware.

414. Manilla Insulating Paper.—A Lancashire firm asks to be placed in communication with exporters of the above.

415. Composition Moulding.—The London office of a Canadian company wish to obtain the addresses of Canadian manufacturers of composition mouldings able to undertake export trade.

416. Cut Glass Ware.—A London firm wishes to receive catalogues and prices from Canadian manufacturers who can ship ornamental cut glassware, including vases and salad bowls, both to the United Kingdom and South Africa.

417. Talc.—A Liverpool firm wishes to purchase supplies of ground talc and invites offers from Canadian producers.

418. Hickory shafts for golf sticks.—A Glasgow firm ask as to the possibility of securing the above from Canada. They have been purchasing large quantities from the United States.

419. Electrical accessories.—An Edinburgh firm ask to be placed in touch with exporters of the above.

420. Gramophone motors.—An Edinburgh firm would like to hear from exporters of gramophone motors.

421. Scrap mica and crude asbestos.—A firm in England requires scrap mica and crude asbestos used in connection with the manufacture of asbestos-cement products of all descriptions.

422. Tea Chests.—A long established firm of international traders in London wish to get in touch with Canadian manufacturers who are in a position to undertake the manufacture of veneer rubber tea chests. This firm is desirous of securing quotations at the earliest possible moment and if possible quotations should be sent by cable. We have specifications of the above tea chests on file at this office.

423. Match Splints and Skillets.—A firm in London is desirous of getting in touch with Canadian manufacturers who can supply match splints and skillets (box materials) in quantity. Samples and other information are in possession of the Department of Trade and Commerce.

424. Portland Cement.—A London firm seek supplies of Canadian Portland cement for direct shipment to their South African house, and invite offers C.I.F., Cape Town, from Canadian manufacturers.

425. Agricultural Machinery.—An organization in Namur, Belgium, who state that they can furnish excellent financial and other references, wish to secure the exclusive agency for that country of Canadian manufacturers of agricultural machinery, binders, reapers, etc.

426. Import and Export House.—A representative of a large London import and export house which operates branches in Sydney, Melbourne, Wellington and Buenos Aires, is in Toronto, and is desirous of getting in touch with firms who are in a position to export the following: Paper of all grades, box board, boot and shoe leather, legging leather and biscuits.

Babbitts
Solders
Pig Metals
Type Metals
Lead Pipe
Lead Traps
Lead Sheet
Lead Cames



Largest Makers of
WHITE METALS
in the World

HOYT METAL COMPANY
Montreal TORONTO Winnipeg

Canadian Des Moines Steel Co.
LIMITED

We specialize in the construction of
Elevated Steel Tanks and Towers,
Penstocks
Storage Tanks
and all types of
Steel Plate Work

We also build
Highway Bridges
Steel Buildings
and Industrial Specialties



HALIFAX, N. S.
DOMINION TEXTILE CO., LTD.
40,000 gallons, 100 foot tower
Sprinkler Service

SEND YOUR INQUIRIES TO

Canadian Des Moines Steel Co.
Limited
OFFICE AND PLANT: 150 INSHES AVE.
CHATHAM, ONT.

Minister:
Hon. W. R. Rollo

Department of Labour
ONTARIO GOVERNMENT

Deputy Minister:
W. A. Riddell, Ph.D.

INVESTIGATION AND RESEARCH

The Department is the Provincial centre for investigation and research in matters connected with labour. Pamphlets on vocational opportunities for boys and girls in the industries of the Province are being prepared.

Already issued--
Bulletin on Department and Notion Stores.

Also—
Mothers' Allowances—An Investigation.

ADMINISTRATION OF

1. The Stationary and Hoisting Engineers' Act.
2. The Factory, Shop and Office Building Act.
3. The Steam Boiler Act.
4. The Building Trades Protection Act.
5. The Employment Agencies Act.
6. The Bureau of Labour Act.

Ontario Government Employment Bureaus
(Employment Service of Canada)

Use these bureaus to obtain workers for every grade of work

ARMSTRONG WHITWORTH OF CANADA
LIMITED

Montreal,
Toronto,
Hamilton,
Winnipeg



Works: LONGUEUIL, QUE.

Manufacturers in Canada of

Locomotive and Car Wheel Tires

HIGH SPEED and CARBON TOOL STEEL

Dominion Tar & Chemical Company Limited

Will all our friends please note that on and after May 1st, 1920, our address will be

171 ST. JAMES STREET, MONTREAL

where all communications should be sent

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. Rates for insertion in this department, $4.00 per heading per year (12 insertions).

ABRASIVES
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

ADVERTISING SIGNS
Cross Press & Sign Co., Ltd., Woodstock, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.

AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

AIR LIFT PUMPS
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.

ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,

ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.

ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.

ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

ARSENIC
*Deloro Smelting & Refining Co., Limited. Deloro, Ont.

ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.

ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St, Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.

AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.

AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BACON
F. W. Fearman Co., Ltd., Hamilton, Ont.

BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Flashlight
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Storage
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BEARINGS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEEF
F. W. Fearman Co., Ltd., Hamilton, Ont.

BELTING CHAINS
Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*McArthur Beltings, Limited, Brockville, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha and Rubber Ltd., Toronto, Ont.

BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
*Canadian Salt Co., Ltd., Windsor, Ont.

BLOWERS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.

BOILER GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILERS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co., Ltd., Guelph.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, hot water or steam
Warden King, Ltd., Montreal.

BOILERS, steam
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd,, Brantford, Ont.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.

BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.

BOOKLETS
R. G. McLean, Toronto.

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

BOXES, cellular and fibre board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.

BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,

BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penatanguishene, Ont.

BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.

BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS ENGRAVERS
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS PLATES
*Tallman Brass & Metal Co., Hamilton, Ont.

*For Display Advertisement see Index, Page 51

BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd,, New Toronto.

BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS WORK, special
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BRICK
*Interprovincial Pressed Brick Co. of Canada, Limited, Toronto.
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.

BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd. Quebec, Que.

BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.

BRIDGES, Railway and Highway
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd,, Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.

BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.

BRONZE SHEETS, RODS, PLATES
*Dominion Copper Products Company, Ltd., Montreal.

BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,

BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.

BRUSHES, carbon
*Canadian National Carbon Co., Ltd., Toronto.

BUCKET TANKS
*MacKinnon Steel Co., Ltd,, Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.

BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
*The Barrett Co., Ltd., Toronto and Montreal.

BUNGS, wooden for barrels
Wm. H. White, Ville St. Pierre, Montreal, Que.

BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.

BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.

CABLES, electric light, power, telephone and telegraph
*Northern Electric Company, Limited, Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

CABLES, transmission and telephones
*Northern Electric Company, Limited, Montreal, Que.

CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.

CABLES, wire
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.

CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.

CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.

CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.

CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.

CARBIDE
*Canada Carbide Co., Ltd., Montreal. Que.

CARBONS, electric
*Canadian National Carbon Co., Ltd., Toronto, Ont.

CARBONIC ACID GAS
*Canadian Carbonate Co., Montreal.

CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.

CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CARRIERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.

CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARS
*National Steel Car Co., Ltd., Hamilton, Ont.

CARS, industrial
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.

CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

CASTINGS, aluminum, brass and bronze
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto, Ont.
*Dodge Mfg. Co., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CASTINGS, malleable iron
*Galt Malleable Iron Co., Ltd., Galt, Ont.

CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.

CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.

CAUSTIC SODA
*Canadian Salt Co., Ltd., Windsor.

CELLBOARD
*Adams Cellboard Co., Toronto.

CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd. Galt, Ont.

CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Company, Ltd., Toronto, Ont.

CHAIRS
*Office Specialty Mfg. Co., Ltd Newmarket, Ont.

CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Stratford, Ont.

CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*The Grasselli Chemical Co., Ltd., Toronto, Ont.
*The Nichols Chemical Co., Ltd., Montreal, Que.

CHEMISTS, industrial
*Milton Hersey Co., Montreal.

CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd., Toronto, Ont.

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

CLAM SHELL BUCKETS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CLAY, Ground.
*Interprovincial Brick Co. of Canada, Limited, Toronto.

CLOCKS, time
*International Business Machines Co., Ltd., Toronto.

CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto, Ont.

CLOSET SEATS
*Goderich Organ Co., Goderich,Ont.

CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.

CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto.

CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.

CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.

CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.

COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.

COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

COFFEE
S. H. Ewing & Sons, Montreal.

COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co.. Ltd. Hamilton, Ont.

COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.

COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.

COLORS
*A. Ramsay & Son Co., Montreal.

COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.

CONCRETE COATINGS, PAINTS, Etc.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Sturgeons Limited, Toronto.

CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd.. Toronto, Ont.

CONDENSERS, Barometic
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.

CONTAINER BOARD—strong container
*Bathurst Lumber Co., Ltd.. Bathurst, N.B.

CONTRACTOR'S PLANT
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CONVEYORS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.

COPPER
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.

COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

* For Display Advertisement see Index, Page 31

COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

CORKS
S. H. Ewing & Sons, Montreal, Que.

CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.

CORRUGATED PAPER BOXES
Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

CORSETS
Dominion Corset Co., Quebec, Que.

COTTONS
*Montreal Cottons, Ltd., Valleyfield, P.Q.

COTTONADES
Hamilton Cotton Co., Hamilton, Ont.

COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.

COUPLINGS
*Dodge Mfg. Co., Ltd., Toronto.

CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.

CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.

CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.

CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.

CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.

CRUSHERS, Rock and Ore
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

CUPOLAS
*Northern Crane Works, Ltd., Walkerville, Ont.

CUPS, presentation
Standard Silver Co., Toronto, Ont.

CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.

CUTLERY
Standard Silver Co., Toronto, Ont.

CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.

DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.

DENIMS
Hamilton Cotton Co., Hamilton, Ont.

DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.

DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.

DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.

DIES
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.

DISINFECTING APPARATUS
Spramotor Co., London, Ont.

DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.

DREDGES
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

DRESSING, belt
Sadler & Haworth, Montreal, Que.

DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas, Ont

DRILLS, Square or Hexagon
Globe Engineering Co., Limited. Hamilton, Ont.

DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.

DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.

DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

DRY COLORS
*The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co. Ltd., Windsor, Ont.

DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.

DURABLE WIRE ROPE
*The Dominion Wire Rope Co., Ltd., Montreal, Que.

DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.

DYNAMOS
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.

DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.

EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont

ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.

ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.

ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.

ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.

ELECTRODES, carbon
*Canadian National Carbon Co., Ltd., Toronto, Ont.

ELECTROTYPING
Central Press Agency, Ltd., Toronto.

ELECTRICAL SUPPLIES
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.

ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont

ELEVATING MACHINERY
Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.

ELEVATORS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.

ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto.
Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.

EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

ENAMEL AND TIN WARE
*McClary Mfg. Co., London, Ont.

ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & R. Weir, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
*Massey-Harris Co., Ltd., Toronto

ENGINES, gasoline, tractor, plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.

ENGINES, hoisting
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*The Waterous Engine Works Co. Ltd., Brantford, Ont.

ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.

ENGINES, steam plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.

ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.

ENGRAVERS, half-tone
Grip, Ltd., Toronto.

ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.

ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont,

ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.

ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.

ENVELOPES
*Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.

EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.

EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.

FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.

FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.

FANS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

FARM POWER & LIGHT PLANTS
*Northern Electric Company, Limited, Montreal, Que.

FENCING, wire
*C. H. Johnson & Sons, Ltd., Montreal, Que.

FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.

FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.

FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.

FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal Supply Department

FIBRE (vulcanized), sheets, rods, tubes, etc.
The Diamond State Fibre Co. of Canada, Ltd., Toronto.

FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.

FILING CABINETS
*Office Specialty Co., Newmarket, Ont.

FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.

FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.

FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.

FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.

FIRE BRICK, PLASTIC
Beveridge Paper Co., Ltd., Montreal, Que.

FIRE DOOR HARDWARE
*Richard Wilcox Canadian Co., Ltd., London, Ont.

FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.

FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.

FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.

FIRE PROTECTION SYSTEMS
*Canadian Des Moines Steel Co., Limited, Chatham.

FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont

FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.

FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.

***For Display Advertisement see Index, Page 51**

FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.
FITTINGS, steam
Warden King Ltd., Montreal, Que.
FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.
FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FURNACES
*McClary Mfg. Co., London, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
*S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GAUGES
*Brown Engineering Corporation, Toronto, Ont.
GEARS, cut
*Brown Engineering Corporation, Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GILDING METAL
*Dominion Copper Products Co., Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.
GLUE
Canada Glue Co., Ltd., Brantford, Ont.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.
GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.
GRAPHITE, lubricating
Black Donald Graphite Company, Limited, Calabogie, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GYPSUM PRODUCTS
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATERS, WATER FEED
*Mason Regulator & Engineering Co., Ltd., Montreal, Que.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOSE, fire and rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOUSES, factory made
Wm. H. White, Ville St. Pierre, Montreal, Que.
HYDRAULIC TURBINES
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
*The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
INSULATION VULCANIZED FIBRE
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
JACKS
Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
*Caron Bros., Montreal, Que.
JEWELRY, gold-filled
*Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation Ltd., Galt, Ont.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford,, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spence, Ltd. Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto.
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.

*For Display Advertisement see Index, Page 51

LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.
LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LINK-BELT, Ewart and saw mill riveted
*Canadian Link-Belt Co., Toronto.
LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.
LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto. Ont.
LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.
LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.
LOOSE LEAF SYSTEMS
Copeland-Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.
LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
LUMBER
*Brown Corporation, La Tuque, Que.
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.
LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
LUMBER, spruce and pine, cedar railway ties and shingles
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.
LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.
LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.
MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY, Conveying
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd. Galt, Ont.
MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.
MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
Canadian Mead Morrison Co., Ltd., Montreal, Que.
J. & R. Weir, Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, pulp mill
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, roadmaking
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
MACHINERY, transmission
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINE WRENCHES
*Canadian Billings & Spencer, Ltd., Welland, Ont.
MACHINES, painting
Spramotor Co., London, Ont.
MAGNESITE
*Canadian Carbonate Co., Montreal, Que.
MALLEABLE IRON CASTINGS
*Galt Malleable Iron Co., Ltd., Galt, Ont.
MAPLE PRODUCTS
*Maples, Ltd., Toronto, Ont.
MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.
MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.
METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.
METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL LATH
*The Pedlar People, Ltd., Oshawa, Ont.
METAL PACKING
*Garlock Packing Co., Hamilton, Ont.
METAL, spinning and stamping
*The Booth Coulter Copper & Brass Co., Ltd., Toronto, Ont.
METAL PROTECTIVE PAINTS
Sturgeons Limited, Toronto.
METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL STAMPINGS
Canadian Cartridge Co., Ltd., Hamilton, Ont.
METERS, water
Canadian Cartridge Co., Ltd., Hamilton, Ont.
MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
MILLING CUTTERS
*Pratt & Whitney Co. of Canada, Dundas, Ont.
MILL RIVITED
Canadian Link-Belt Company, Ltd., Toronto, Ont.
MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
*A. R. Clarke & Co., Ltd., Toronto.
MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.
MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.
MONEL METAL
International Nickel Co. of Canada, Ltd., Toronto.
MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MOTOR CARS
*Ford Co. of Canada, Ford, Ont.
MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.
MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.
MOTORS, electric (repairing)
*T. & H. Electric Co., Hamilton.
MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAILS, wire
Parmenter & Bullock Co., Ltd. Gananoque, Ont.
NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.
NICKEL CASTINGS
International Nickel Co. of Canada, Ltd., Toronto.
NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
International Nickel Co. of Canada, Ltd., Toronto.
NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St Catharines, Ont.
International Nickel Co. of Canada, Ltd., Toronto.
NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.
OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.
OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.
OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
OILS
*A. Ramsay & Son Co., Montreal, Que.
OIL FILTRATION AND CIRCULATING SYSTEMS
*S. F. Bowser & Co., Toronto, Ont.
OIL STORAGE SYSTEMS, self-measuring
*S. F. Bowser & Co., Toronto, Ont.
OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.
OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*The Imperial Oil Co., Toronto.
OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
ORGANS, reed
Bell Piano & Organ Co., Ltd., Guelph, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto
OXYGEN
*L'Air Liquide Society, Montreal Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
*Jenkins Bros., Ltd., Montreal, Que.
PAD HOOKS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.

* For Display Advertisement see Index, Page 51

PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
*A Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.
PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal.
PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.
PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, building
Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal.
PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.
PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
PATENTS
Fetherstonhaugh & Co., Toronto.
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.
PATENT LITIGATION
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.
PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.
PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.
PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.
PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.
PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.
PIANO KEYS
The Otto Higel Co., Ltd., Toronto.
PIANO, player actions
The Otto Higel Co., Ltd., Toronto.
PIANOS AND PLAYER PIANOS
Bell Piano & Organ Co., Ltd., Guelph, Ont.
PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.
PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*M. A. Hanna & Co., Toronto.
PINS, society, emblems and badges
*Caron Bros., Montreal, Que.
PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.
PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.
PIPES, culvert
*The Pedlar People, Ltd., Oshawa, Ont.
PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.
PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
PLANING MILLS
G. & J. Esplen, Montreal, Que.
PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
PLOWS
J. Fleury's Sons, Aurora, Ont.
PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.
POWER PRESSES
*Hydraulic Machinery Co., Ltd., Montreal, Que.
PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSES, veneer
*Canada Machinery Corporation Ltd., Galt, Ont.
PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.
PULLEYS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.
PULP, bleached sulphite
*Riordan Sales Co., Ltd., Montreal, Que.
PULP, unbleached sulphite
*Riordan Sales Co., Ltd., Montreal.
PULP, sulphate and sulphite
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
PUMPS, boiler feed
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.
PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS, turbine and reciprocating
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
PUNCHES
*Pratt & Whitney Co., Dundas, Ont.
RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.
RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.
RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.
READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.
REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.
RECEPTACLES, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.
REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.
REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.
REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.
REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.
RINGS, gold
*Caron Bros., Montreal, Que.
RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
RODS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.
ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.
ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
ROOFING, ready to lay
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.
ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.
ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.
RUBBER FOOTWEAR
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.
RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Limited, Toronto.
RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
RUBBER MILL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
RUBBER PACKING
*Garlock Packing Co., Hamilton, Ont.
RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.
SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.
SAMPLE CASES
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.
SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.
SALT
*Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.
SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.
SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.
SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.
SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

*For Display Advertisement see Index. Page 51

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.
SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.
SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.
SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.
SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
National Acme Company, Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.
SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.
SERGES
Rosamond Woollen Co., Almonte, Ont.
SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.
SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.
SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.
SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
SHEETS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
SHINGLES
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
SHINGLE STAINS
Sturgeons, Limited, Toronto.
SHIP BUILDERS
J. & R. Weir, Montreal, Que.
SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.
SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto
SHOE PEGWOOD
O. Chalifour, Quebec, Que.
SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont
SHOOKS
Barchard & Co., Ltd., Montreal.
SIGNAL CELLS
*Canadian National Carbon Co., Ltd., Toronto.
SIGNS, Advertising.
Cross Press & Sign Co., Ltd., Woodstock, Ont.
SILENT CHAIN DRIVES
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
SILVERSMITH
Standard Silver Co., Toronto, Ont.
SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.
SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.
SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.
SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
SMOKE-STACKS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
SOAPS
J. Barsalou & Co., Ltd., Montreal.
SOAP (soft, oil)
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.
SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto.
SOIL PIPE
Anthes Foundry, Ltd., Toronto.
SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.
SOLDER, wire and bar
American Can Co., Montreal, and Hamilton.
SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.
SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.
SPECIAL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Globe Engineering Co., Ltd., Hamilton, Ont.
SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
SPINNING AND STAMPING
*Tallman Brass & Metal, Ltd., Hamilton, Ont.
SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.
SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.
SPRAYERS
Spramotor Co., London, Ont.
SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,
SPRING SHACKLE BOLTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
SPROCKET WHEELS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.
STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.
STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.
STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STATIONERY, office
Harris Lithographing Co., Toronto.
STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
STEAM SHOVELS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
STEEL PLATE WORK
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.
STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.
STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.
STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STEREO TISSUE AND BLOTTINGS
*Beveridge Paper Co., Ltd., Montreal.
STEREOTYPING
Central Press Agency, Toronto.
STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
STORAGE BATTERIES
*Northern Electric Company, Limited, Montreal, Que.
*Prest-O-Lite Company of Canada, Limited, Toronto.
STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.
STOVE POLISH GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.
STOVES AND RANGES
*McClary Mfg. Co., London, Ont.
STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.
STRUCTURAL STEEL WORK
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
SULPHUR BURNERS
*The Hydraulic Machinery Co., Limited, Montreal.
SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.
SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.
TANKS
*Canadian Chicago Bridge & Iron Company, Ltd., Bridgeburg, Ont.
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Toronto Iron Works, Ltd., Toronto.
Wm. H. White, Ville St. Pierre, Montreal, Que.
TANKS, elevated steel
*Canadian Des Moines Steel Co., Limited, Chatham.
TANKS, steel storage
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
TANNERS' OILS & GREASES
Salem Oil & Grease Co. of Canada, Limited, Farnham, Que.
TANNERS' SUPPLIES
*McClary Mfg. Co., London, Ont.
TAPS
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

*For Display Advertisement see Index, Page 51

TELEPHONE ACCESSORIES
*Northern Electric Co., Ltd., Montreal, Que.
TENTS
Turner, J. J., & Sons, Peterboro, Ont.
TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
TERRA COTTA, architectural
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
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The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
THUMB SCREWS
*Canadian Billings & Spencer, Ltd., Welland Ont.
TIE TAMPERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TILING, rubber
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TIME RECORDERS
*International Business Machines Co., Ltd., Toronto, Ont.
TINWARE, lithographed
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
TIRES, bicycle, auto, carriage, truck, motorcycle.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TOILET PAPER, towels, tissues
*Beveridge Paper Co., Ltd., Montreal.
TOOLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.
TOOLS, sheet metal workers'
Brown, Boggs Co., Ltd., Hamilton.
TRADE MARKS AND DESIGNS
*Ridout & Maybee, Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSFORMERS
The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSLATIONS INTO FRENCH
Raoul Renault, Quebec City.
TRANSMISSION MACHINERY
*Canadian Link Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
TRAPS
*C. A. Dunham Co., Ltd., Toronto.
TROLLEYS
*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.
TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.
TRUCKS FOR OFFICE AND VAULT USE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto.
TUBES, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.
TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.
TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.
TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.
TURBINE PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
TWEEDS
Rosamond Woollen Co., Almonte, Ont.
TWINES
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.
TWINES, binder
Brantford Cordage Co., Ltd., Brantford, Ont.
TWINES, cotton
Hamilton Cotton Co., Hamilton, Ont.
TWIST DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll.
*Pratt & Whitney Co. of Canada, Dundas, Ont.
UNDERWEAR
Galt Knitting Co., Ltd., Galt, Ont.
UNDERWEAR, imperial
Kingston Hosiery Co., Ltd., Kingston, Ont.
UNIONS
*Dart Union Co., Ltd., Toronto.
UPHOLSTERED FURNITURE, leather and tapestries
Imperial Rattan Co., Ltd.
VACCUM PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
VALVES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.
VALVES, for steam and water
*Jenkins Bros., Ltd., Montreal.
James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
VALVES, REDUCING
*Mason Regulator & Engineering Co., Ltd., Montreal, Que.
VARNISHES
*Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
R. C. Jamieson & Co., Ltd., Montreal, Que.
VAULT FITTINGS, steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
VAULTS AND VAULT DOORS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
VENTILATORS
*A. B. Ormsby, Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
WALLPAPERS
Staunton Limited, Toronto.
WASHERS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
WASHERS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.
WASTE BASKETS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
WASTES, wool and cotton
Factory Waste & Metal Co., Montreal, Que.
WATERPROOF, cement coating
Benjamin Moore & Co., Ltd., Toronto, Ont.
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.
WATERPROOF, caselining
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
WATER PAINTS
Sturgeons Limited, Toronto.
WEBBING, elastic
Hamilton Cotton Co., Hamilton, Ont.
WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.
WELDING APPARATUS AND MATERIALS
*The Presto-O-Lite Co., Toronto.
WELL-DIGGING TOOLS AND MACHINERY
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
WHEELS, corundum and emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
WELL DRILLING TOOLS AND MACHINERY
Oil Well Supply Co., Ltd., Petrolia, Ont.
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Lay Whip Co., Rock Island, Que.
WHITE ARSENIC
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
WHITE LEAD
*A. Ramsay & Son Co., Montreal.
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*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
WIRE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
WIRE BALE TIES
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
WIRE CLOTH
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnston & Sons, Ltd., Montreal, Que.
WIRE, feeder and trolley
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE GUARDS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnson & Sons, Limited, Montreal, Que.
WIRE, insulated electric
*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE, weatherproof
*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE ROPE
Canada Wire & Iron Goods Co., Hamilton.
*Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.
WIRE WORK
*C. H. Johnson & Sons, Limited, Montreal, Que.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
WIRING DEVICES
*Northern Electric Co., Ltd., Montreal, Que.
WOOD
Standard Fuel Co., Toronto, Ont.
WOOD BORERS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
WOOD PRESERVATIVES
Sturgeons Limited, Toronto.
WOOD PRINTERS
Barchard & Co., Ltd., Toronto.
WOOD PULP, mechanical
La Cie de Pulpe de Chicoutimi, Chicoutimi, Que.
WOOD SHOP, general work
*Canadian Rumely Co., Ltd., Toronto, Ont.
WOOD SPLIT PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
WOOL
*H. V. Andrews, Toronto, Ont.
WOOD TURNING
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
WORSTED COATINGS AND SUITINGS
Rosamond Woollen Co., Almonte, Ont.
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*The Thompson & Norris Co. of Canada, Ltd., Toronto, Ont.
WROUGHT IRON PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
WROUGHT PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
YARNS, cotton
Hamilton Cotton Co., Hamilton, Ont.
ZINC
Consolidated Mining and Smelting Co., of Canada, Ltd., Montreal, Que.
ZINC, electrical
*The Canada Metal Co., Toronto.

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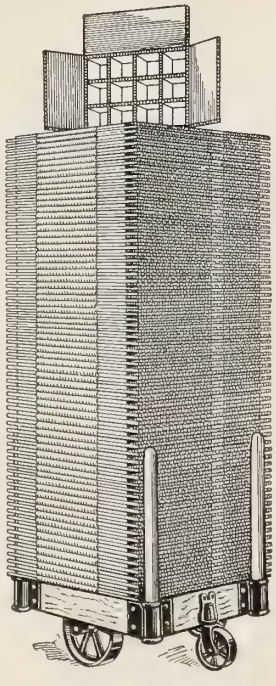
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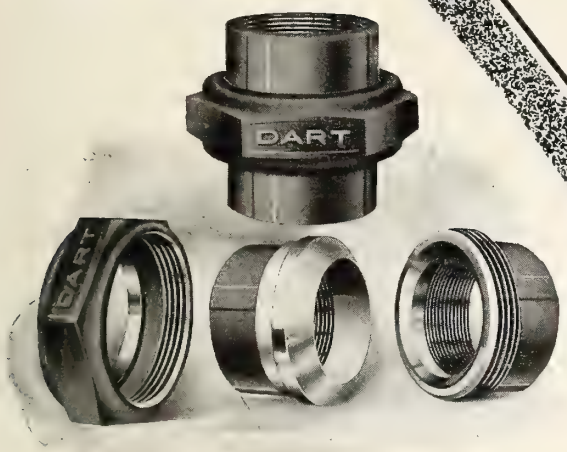
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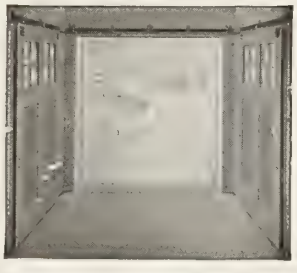


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A Richards-Wilcox Carrier System---either I-Beam or Trolley---will pay for itself in one year on actual pay-roll saving, not to mention the increased efficiency. Occupies no floor space. Always ready for use. Operates easily, one man can handle 2,500 lbs. Trolley carriers made in sixteen styles and sizes for loads up to 2,500 lbs. For heavier loads use I-Beam Equipment.

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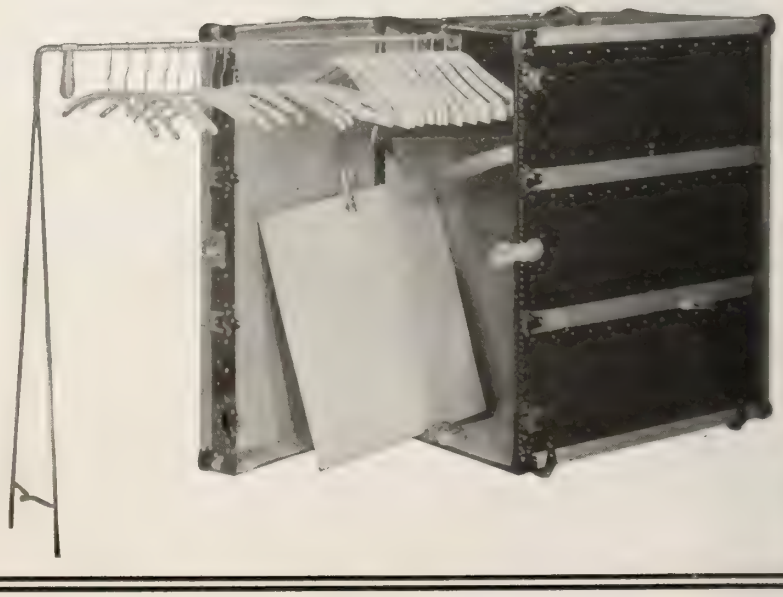
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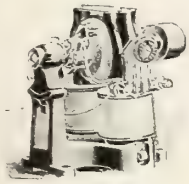
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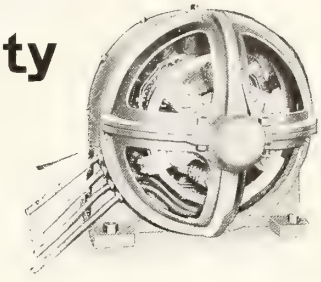




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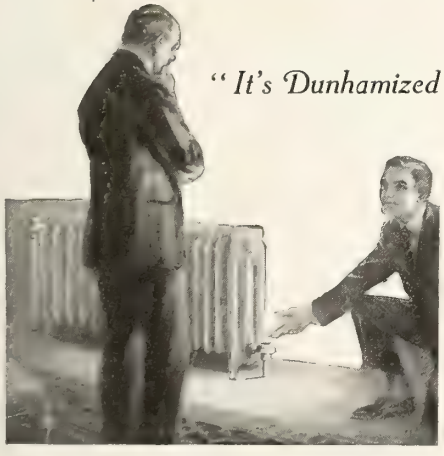
THE CANADIAN
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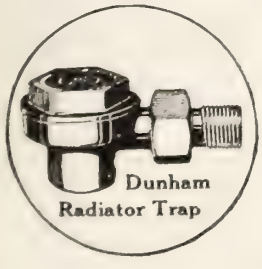
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VANCOUVER
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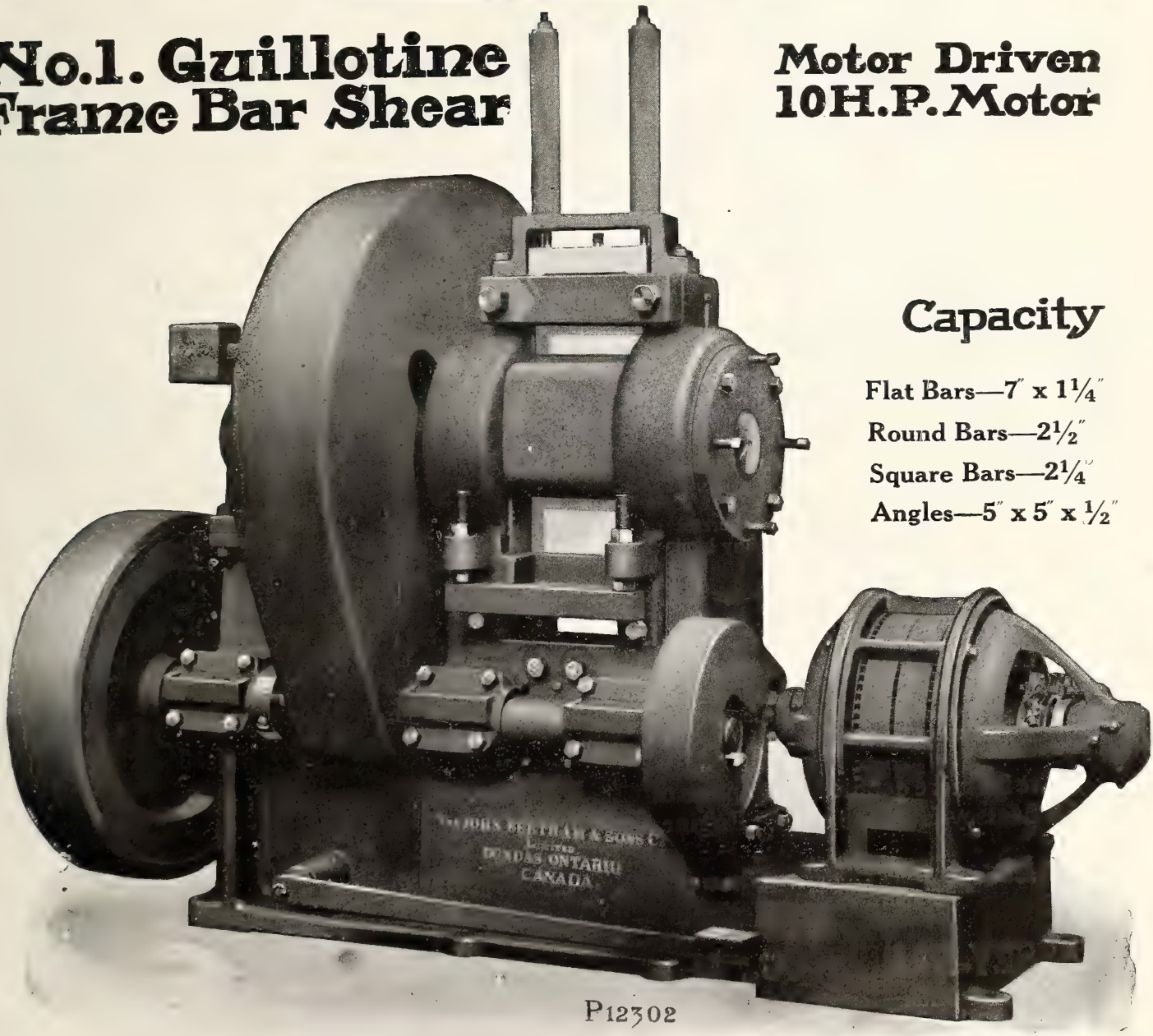
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The BERTRAM Page
MACHINE TOOLS

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No.1. Guillotine Frame Bar Shear

Motor Driven 10H.P. Motor



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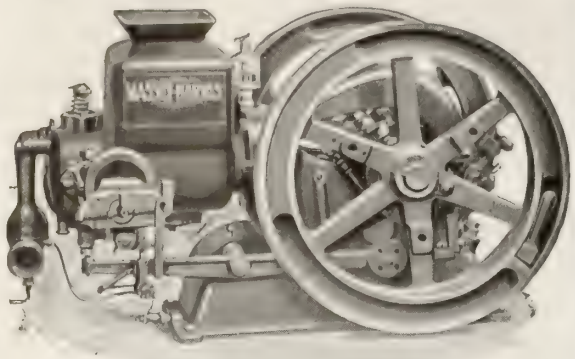
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Flat Bars—7″ x 1¼″
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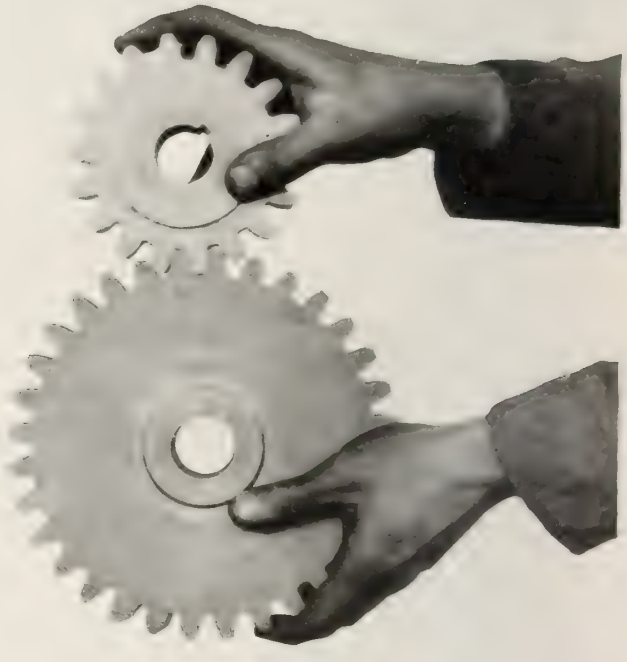
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Hamilton Gear & Machine Co.

Van Horne St. - TORONTO



This illustration shows steel chairs and steel assembling tables manufactured in our factory for the A. Schrader's Sons, Inc. plant, Toronto

Chairs that Never Break

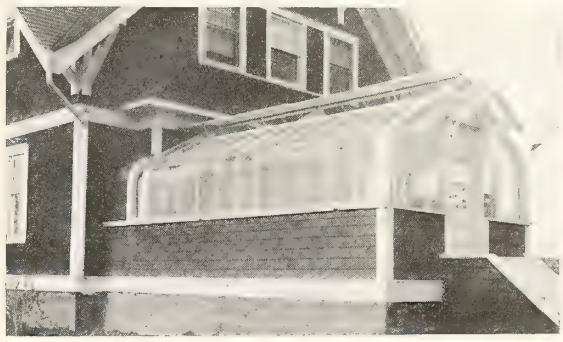
In the factories of Canada, where chairs and stools are used for the employees, there should be an equipment that will stand unusual rough usage.

The most economical stool is one made of steel—it is strong and will withstand, for years, any amount of misuse and yet is light and easy to move.

The Meadows line of chairs and stools is worth investigating. Many factories in Canada have been equipped.

The Geo. B. Meadows Toronto Wire, Iron and Brass Works Co., Limited

479 West Wellington Street, Toronto, Canada



A Saskatchewan Greenhouse

THAT HOLDS A HINT FOR YOU

This snug little greenhouse-conservatory belongs to Dr. McArthur, Swift Current, Saskatchewan.

We furnished the material, all cut and fitted, ready for erection, and the doctor put them together.

Why don't you do the same thing?

Consider the perpetual satisfaction of such an ever available glass garden. For an equivalent expenditure, what can buy greater real joy?

Build it this Summer. Send for figure facts now. Don't wait for lower prices, for it looks like you would have a jolly long wait.

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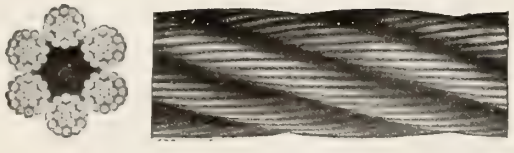
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Stop---Look---Listen

The following is what one manufacturer is doing with STELLITE inserted blade milling cutters.

It's an 8 inch 14 tooth cutter used on an Ingersoll face mill. Three cutters are in simultaneous operation milling automobile cylinder castings.

Eight castings held in a row are finished in 19 minutes. Table travels 18 inches per minute, while the STELLITE cutters rough and finish these castings removing 3/16 inch of metal each at one pass over the work. The manifold bosses and the top and bottom faces measuring 4½ x 30 inches are machined smooth and flat to within .002 inch.

Cutting speed 105 feet per minute, equivalent to 50 revs. of cutter spindle. Daily average of castings finished between grindings 140. Maximum number 232.

Now consider the best results obtained from High Speed Steel. Cutting speed 73 feet per minute. Table travels 5 inches per minute. Under these conditions 52 minutes required to finish 8 castings. Daily average finished between grindings 24.

The High Speed Steel cutters required grinding seven times oftener than STELLITE and produced 300% less work. WHICH OF THE TWO TYPE OF CUTTERS OUGHT YOU USE?

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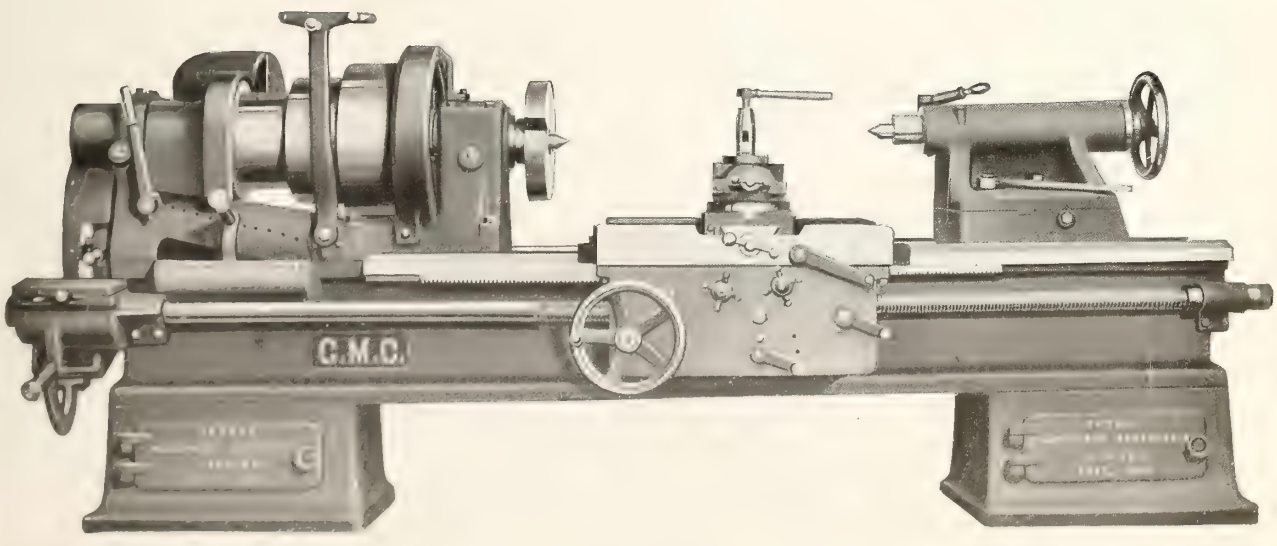
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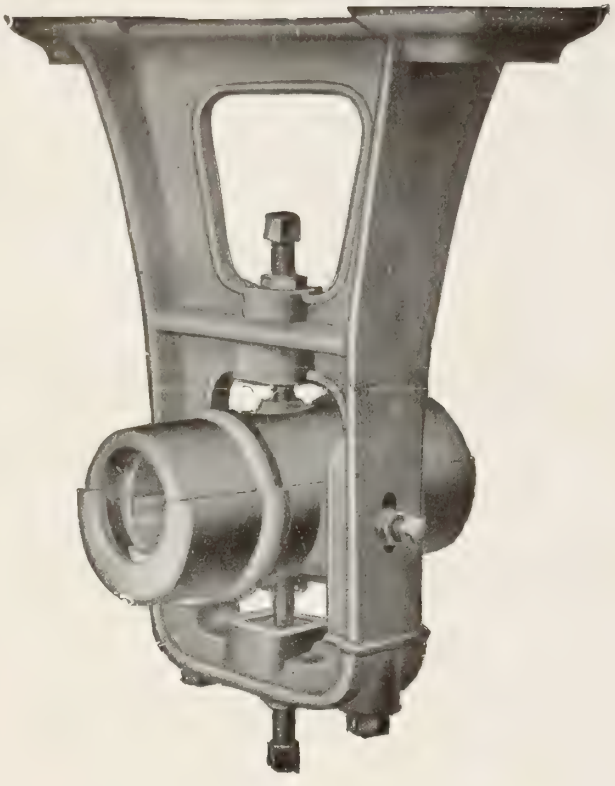
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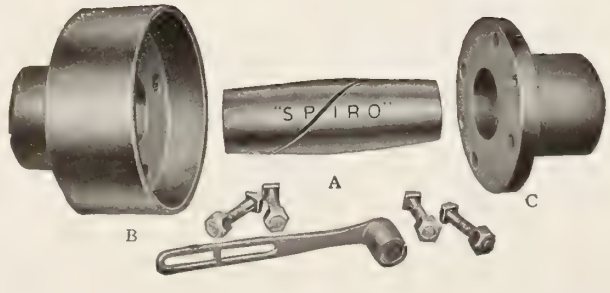


The Bond Patent Universal Drop Hanger---Easy to erect, easy to align, easy to re-align ---that's the BOND.

Note the gradual drawing together of frame outlines from base to yoke---therein lies the ideal combination of strength and lightness. And then there's the removable yoke, and ring oiling ball---and---socket bearing.

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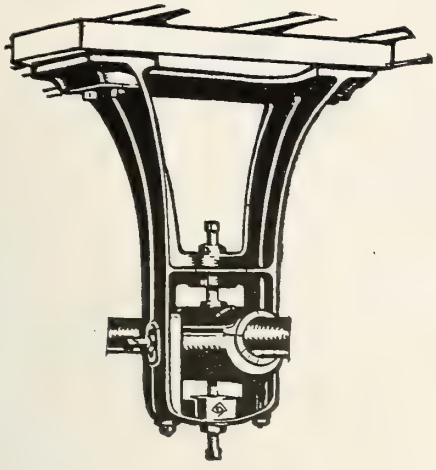


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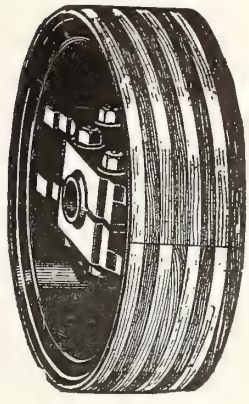
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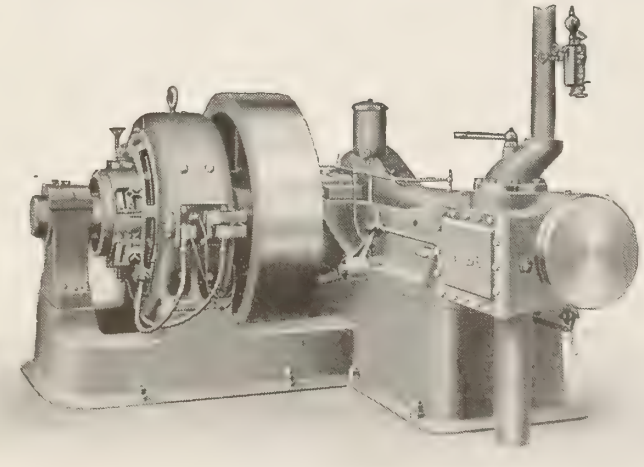
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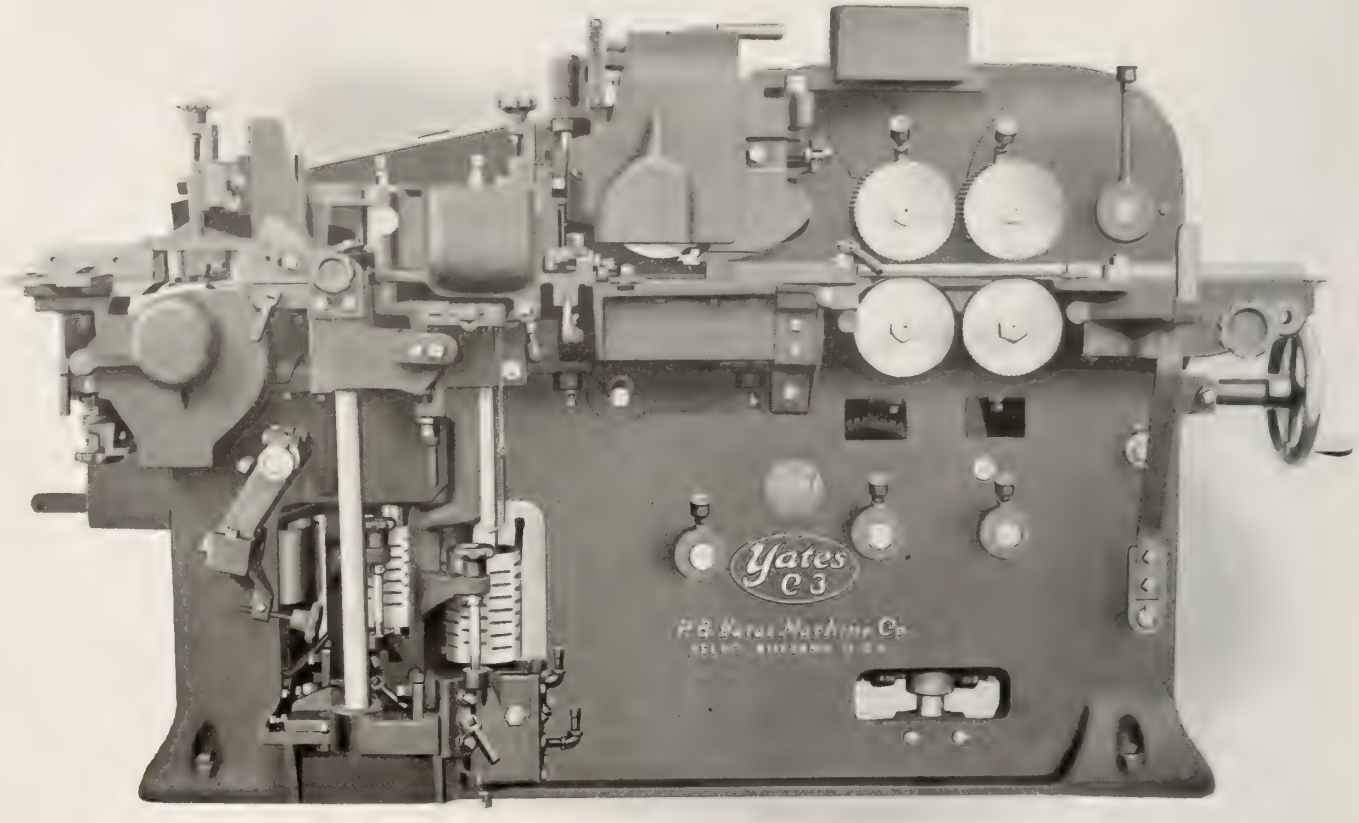
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97

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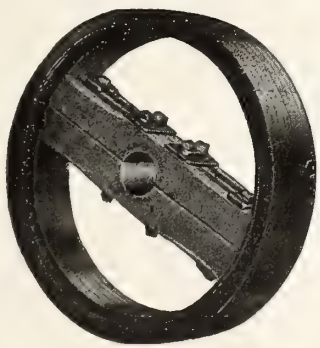
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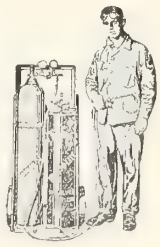
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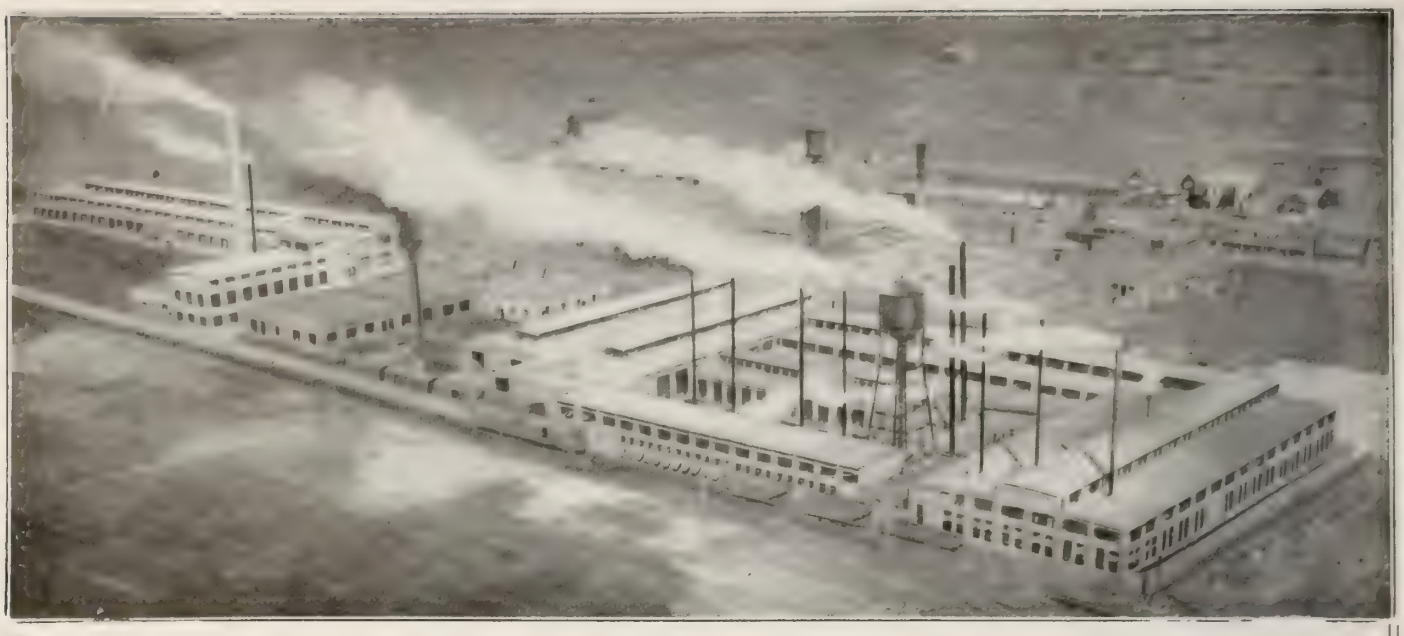
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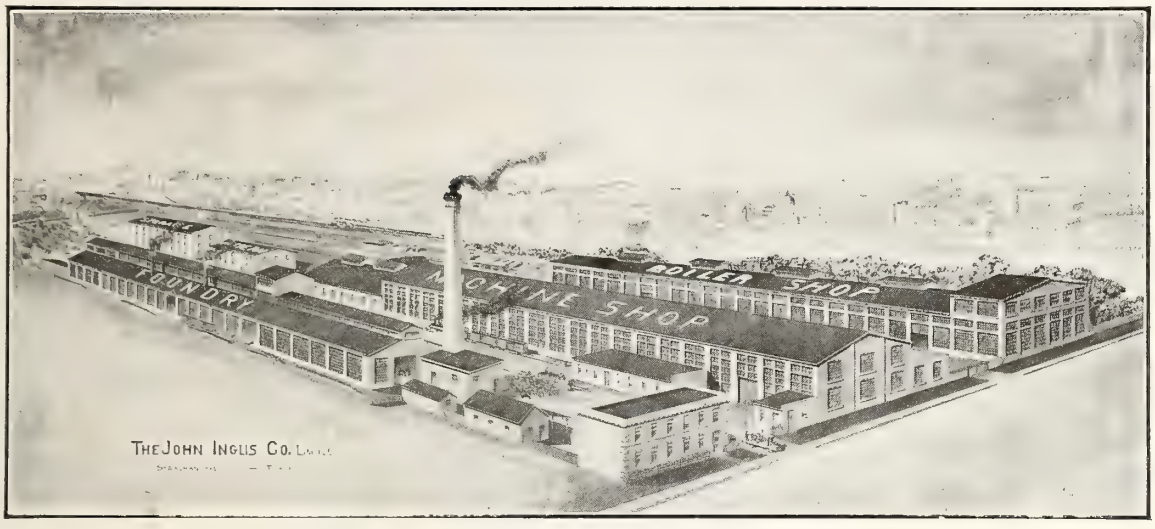
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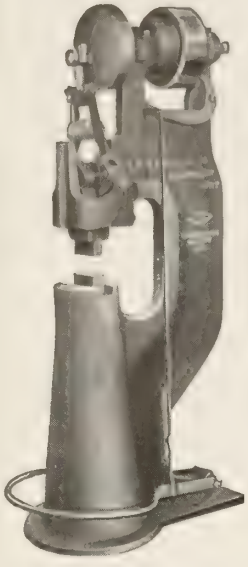
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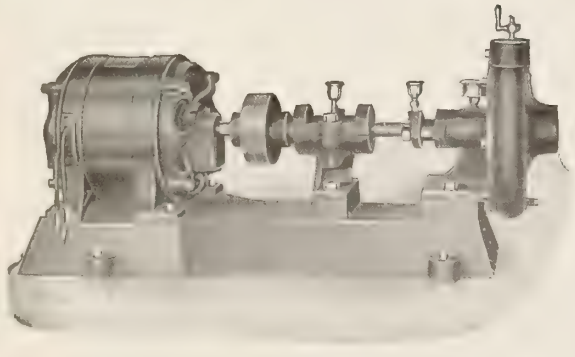


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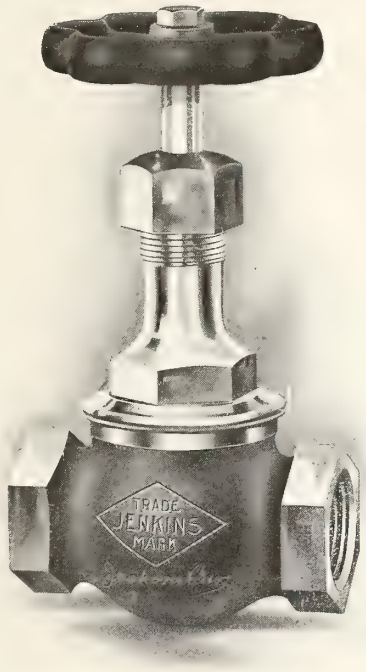


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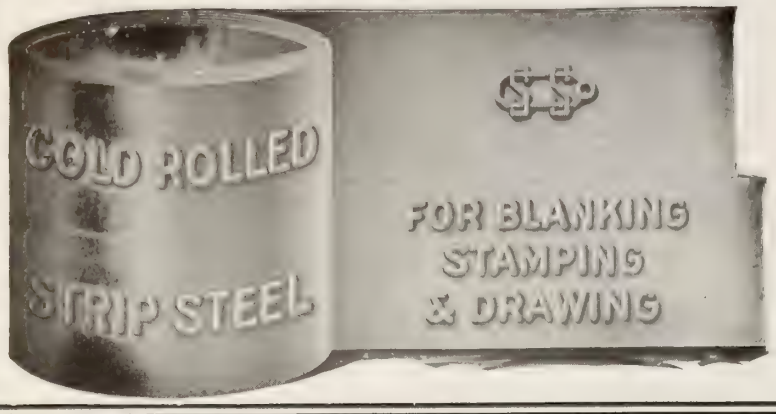
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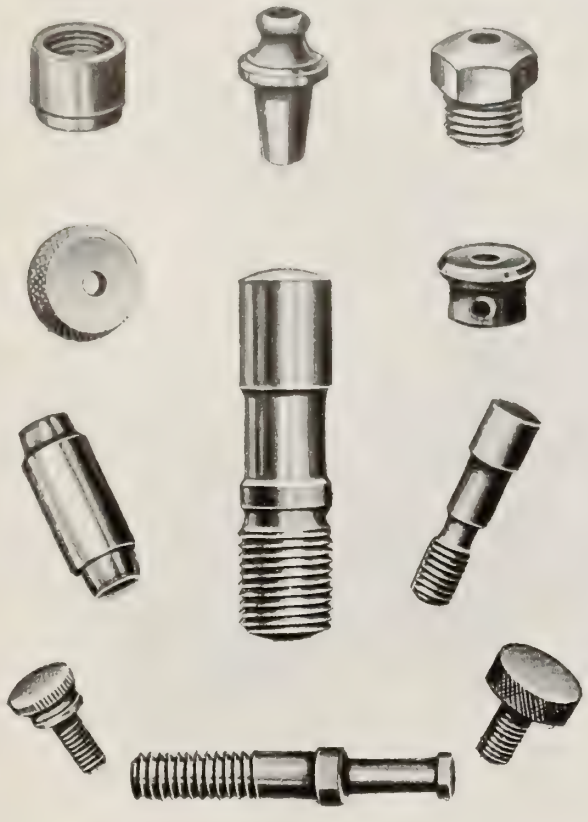
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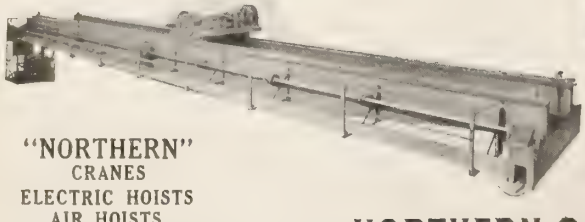
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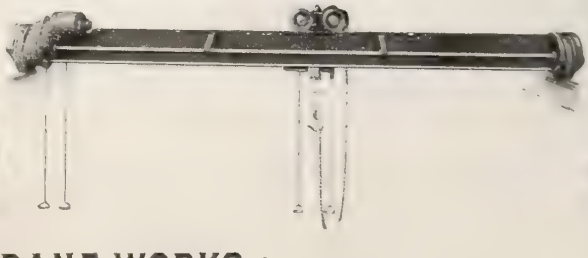
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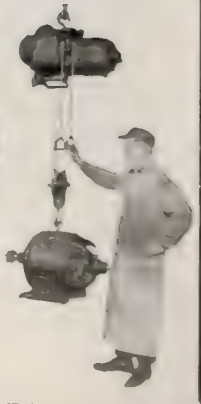
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DRYING MACHINES OR PARTS
MIXING TANKS

SATISFACTION

WE SPECIALIZE IN THE MANUFACTURE OF MACHINERY FOR THE PULP AND PAPER MILL TRADE AS WELL AS ALL HYDRAULIC EQUIPMENT--TRY US

The Hydraulic Machinery Co.
Limited

Montreal - - - - Canada

Wheel Service—

The service one gets from a grinding wheel is primarily a matter of character and quality in the abrasive and bond and skill and care in manufacturing. Next in importance is intelligent wheel selection. It has been said that a good operator can get results from almost any wheel within reasonable range. While to a certain extent this is true, it none the less pays to use the grain and grade which demonstration or experience has proved most efficient for a given condition. Finally, the treatment of a wheel by the user is of utmost importance. Careful handling, proper mounting and timely dressing and truing of the wheel are essential. Attention to the combination of work speed and table traverse is likewise necessary to good results.

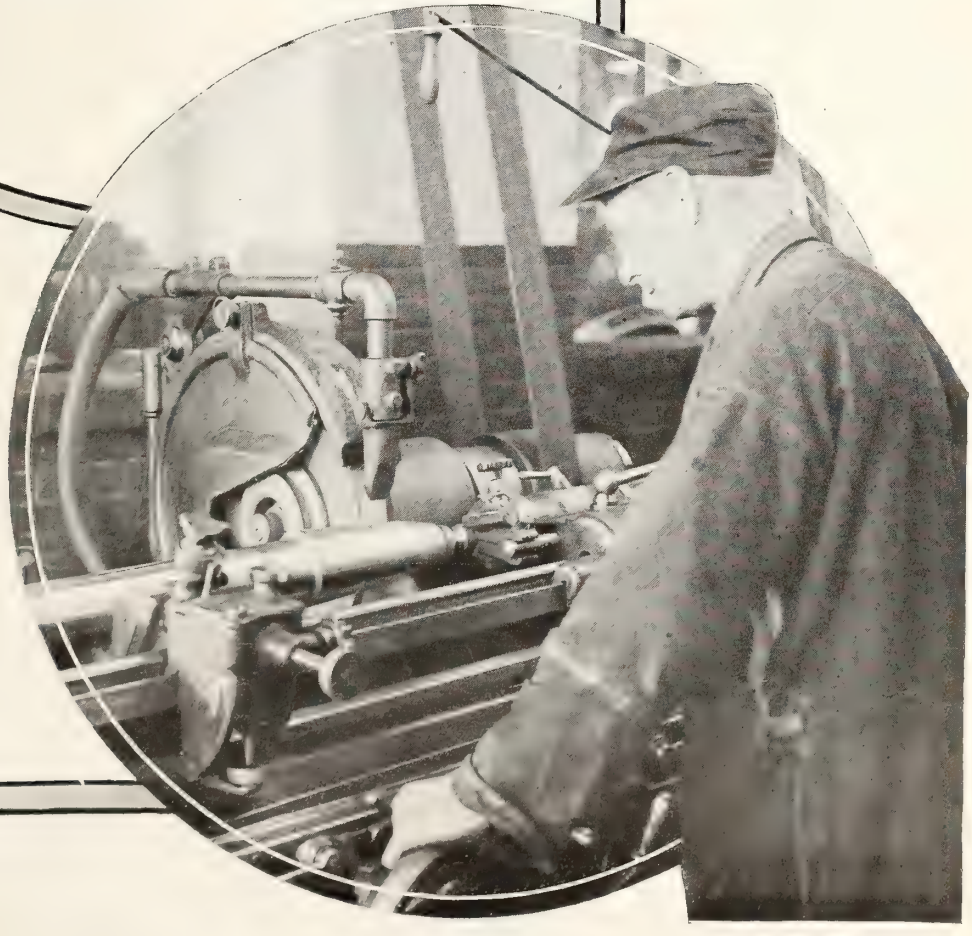
Users of Alundum and Crystolon wheels may secure maximum service in all respects. The correct wheel is always available, extensive records of practical results are at a customer's service through our Sales Engineering Department, and expert instruction in the care and use of wheels can be had from our technically trained salesmen and demonstrators.

Norton Company of Canada, Limited

HAMILTON, ONTARIO, CANADA

CANADIAN AGENTS:

The Canadian Fairbanks-Morse Co., Limited, Montreal, Toronto, Ottawa, St. John, N.B., Winnipeg, Calgary, Saskatoon, Vancouver, Victoria. F. H. Andrews & Son, Quebec, Que.





Window Guards

For Stores, Warehouses, Factory Basement Windows, etc., and all kinds of

WIRE WORK

Manufactured by

The B. Greening Wire Co., Limited

HAMILTON, ONT. MONTREAL, P.Q.

SPECIAL MACHINERY

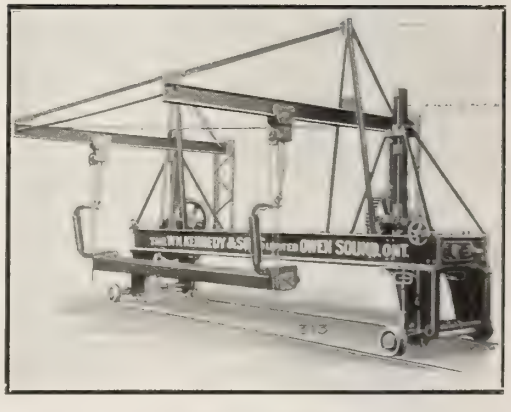
BUILT TO ENGINEERS' DRAWINGS and SPECIFICATIONS



PROPELLER WHEELS

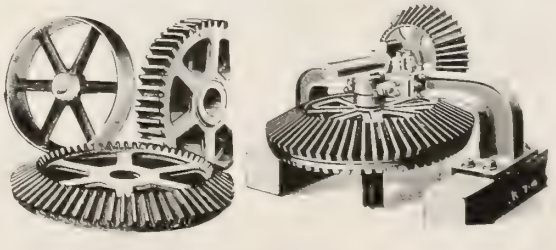


WATER WHEELS



STOPLOG WINCHES

Gears



Steel Castings

THE WM. KENNEDY & SONS, Limited - Owen Sound, Canada



Are any of these jobs done in YOUR plant?

DRILLING, Wood or Metal	CALKING
TAPPING	LIFTING
REAMING	RIVETING
CHIPPING METAL	FLUE-ROLLING
GRINDING	FLUE-EXPANDING
STUD-SEATING	FLUE-BEADING
RUNNING-UP NUTS	SCALING
OPERATING PORTABLE MACHINES	DIE-SINKING
BUFFING	TUBE-CUTTING
	RIVET BUSTING
	STAYBOLT WORK

Then it will pay you to put Little David Air Tools on your pay roll

To get acquainted with them send for Catalogue 8000—a postcard will bring it

Canadian Ingersoll-Rand Company, Limited

Sydney Sherbrooke Montreal Toronto Cobalt
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Little David AIR TOOLS



ALGOMA

STRUCTURAL STEEL – MERCHANT BARS

Blooms, Billets and Slabs
Concrete Reinforcing Bars
Shafting – Pulleys – Hangers
Iron, Brass, Bronze and Steel Castings

Sulphate of Ammonia Nitre Cake
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STEEL RAILS – Open Hearth Quality
Splice Bars Steel Tie Plates
Light Rails – 12 lbs. to 45 lbs.

PIG IRON

Basic Foundry Bessemer Spiegel

ALGOMA STEEL CORPORATION
LIMITED

SAULT STE. MARIE - - - - ONTARIO



WILLYS-KNIGHT

THE owner of a Willys-Knight always knows what to expect from his sleeve-valve motor. Instead of deteriorating it *improves with use*. Its *only* change is a change for the *better*.

Dependable, quiet, smooth power is always at the owner's command. So perfect is its performance and so free from troubles, that he is almost unconscious that there is a mighty motor under the hood.

Owners of Willys-Knight cars naturally place a high valuation upon the fine coach work and luxurious appointments — but, more on the extraordinary advantage of owning cars that run *better* the *longer* they are driven.

WILLYS-OVERLAND LIMITED

Sedans, Coupes, Touring Cars and Roadsters

Head Office and Factories, Toronto, Canada

Branches: Toronto, Montreal, Winnipeg and Regina

CANADIAN FURNACE CO.

LIMITED

PORT COLBORNE, ONT.

Manufacturers of Pig Iron

BRAND "VICTORIA"

"VICTORIA" FOUNDRY IRON

Strong—Soft—Neutral

"VICTORIA" MALLEABLE IRON

Furnished to all Standard Analyses

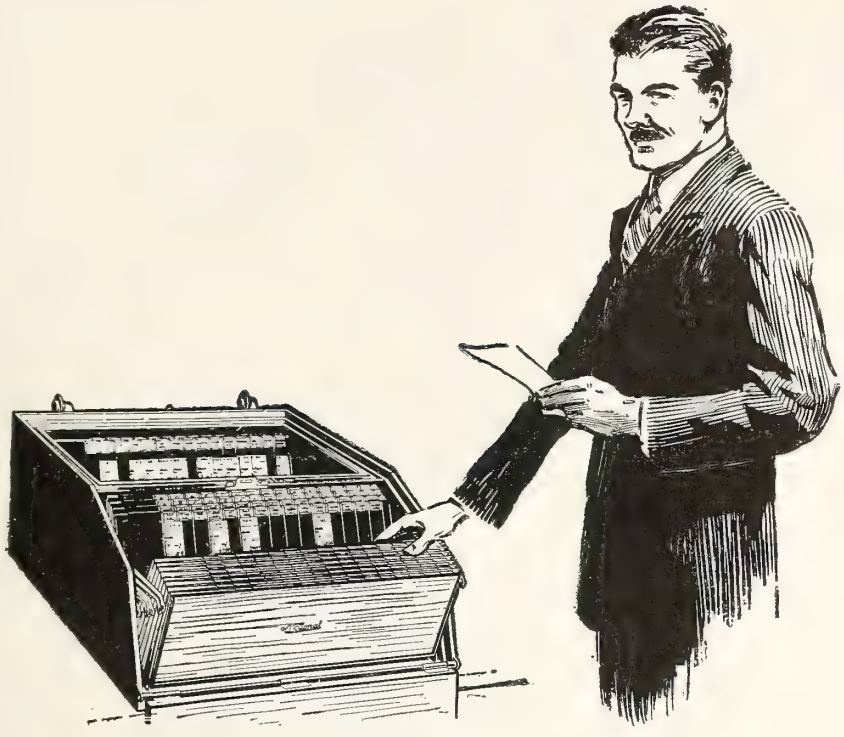
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M. A. HANNA & CO.

Cleveland, Ohio

BUFFALO, N.Y. PITTSBURG, PA. DETROIT, MICH

TORONTO, ONT.



The common-sense way of handling credit accounts

MERCHANTS in 182 different lines of business are using the N.C.R. Credit File.

These merchants have found that the file gives them the common-sense way of handling credit accounts.

It is a one-writing system. It eliminates book posting of accounts.

It keeps each day's credit business separate.

It prevents forgetting to charge goods sold on account.

It prevents neglecting to credit money paid on account.

It gives each charge customer a statement of account on every purchase.

It protects every credit record until it is paid in full.

It saves time, work, and worry. It stops leaks and saves profits.

Investigate this common-sense way of handling credit accounts

The National Cash Register Company of Canada, Limited

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London	350 Dundas Street
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Ottawa	306 Bank Street
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Hamilton	14 Main Street E.
Regina	1820 Cornwall Street
Montreal	122 St. Catherine Street W.
Vancouver	524 Pender Street W.
Toronto	40 Adelaide Street
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FACTORY: TORONTO, ONTARIO

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Dept. 25, The National Cash Register Company of Canada, Limited
97 Pelham Ave., Toronto, Ontario

Please give me full particulars about the N.C.R. Credit File way of handling credit accounts.

Name _____

Business _____

Address _____

"MEAD-MORRISON"

CANADIAN MM Co

CANADIAN MM Co

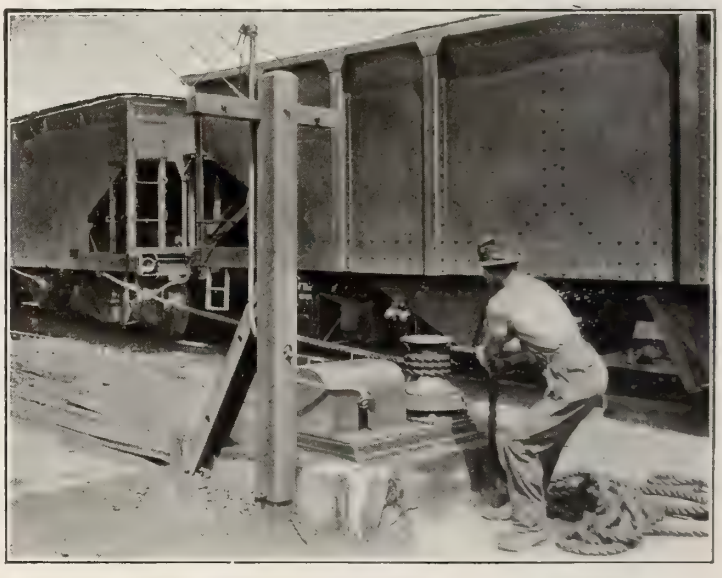
Electric Car Puller

How long does it take you to spot that car?

How do you get the empties back on the other siding?

This ***Car Puller*** requires only ***One Man.***

The capacity of the Puller is a Rope Pull of 3,500 pounds at a rope speed of 60 feet a minute.



Furnishes ***Dependable Service*** under all conditions

PUT YOUR PROBLEM UP TO US!

CANADIAN MEAD-MORRISON CO
LIMITED
285 BEAVER HALL HILL
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WORKS: WELLAND ONT.



Capacity Production

EVERY manufacturer wants capacity production; he wants every ounce of power and work from his machinery. Volume of production is largely a matter of steady, uninterrupted work, which means that the machinery must be maintained at maximum efficiency.

To give this continuous, efficient service, machinery must be properly lubricated. Correct lubrication is inseparable from the economical operation of machines and power equipment; it is a big factor in profitable manufacturing and *you cannot afford to use any but the best lubricants in expensive machinery.*

Imperial Lubricants are well known for their high, uniform quality. They are graded for every type of machine and every moving part. They have been tested and proved under actual service conditions to be of superior fitness for the work for which each is designed.

If you have lubrication problems or difficulties, write to our Imperial Lubrication Engineers. They will gladly study your problems and submit recommendations free of charge or obligation.

IMPERIAL

Lubricants

For Manufacturing, Mining and Milling

CYLINDER OILS

Imperial Valve Oil
Imperial Cylinder Oil
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Imperial Junior Red Engine Oil
Imperial Bayonne Engine Oil
Imperial Renown Engine and Dynamo Oil
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Write to 56 Church Street, Toronto, or to any of our branches for an appointment or for information or advice on your lubrication problems.

IMPERIAL OIL LIMITED

Power · Heat · Light · Lubrication

BRANCHES IN ALL CITIES



Canadian Carbide

Made in Canada

SOLD THE WORLD OVER

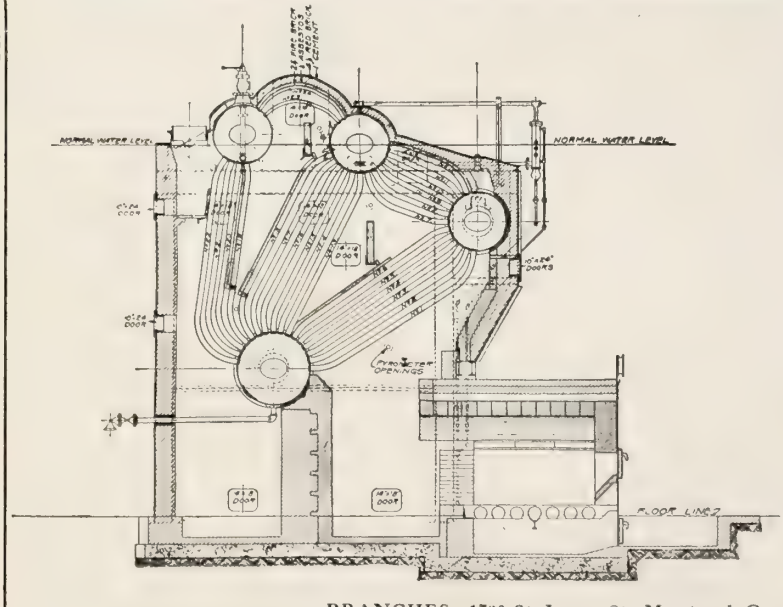
Second to None in

QUALITY, GAS YIELD
AND PACKAGE

MANUFACTURED BY

Canada Carbide Company, Limited
MONTREAL - CANADA

Works:
St. Catharines, Ont.
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CONNELLY WATER TUBE BOILERS (Patented U.S. & Canada)

are of the 4 drum type, have 100% tube area in the path of circulation, and deliver steam superheated to from 5 to 10 degrees Fahrenheit.

Simple in design, no flat surfaces, no stay bolts, no crown bars, no braces, no handholes; free from joints.

All parts easily accessible for cleaning, both internally and externally.

Can be built in units from 200 H.P. up to 4,000 H.P. and for working pressures up to 300 lbs.

150,000 H.P. in successful operation.

Made in Canada by

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Head Office and Works: London, Canada

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ESTABLISHED 1834

LEONARD



"P. M. S." BELTS

The unusual flexibility of "P.M.S." Belts gives perfect conformity to pulleys, large or small, and is specially adapted to taper cone drives in Paper Mills—the most difficult belt test known. This unusual adaptability increases pulley contact and prevents loss of power. Where extra heavy loads are carried, "P.M.S." Belts are particularly appreciated.

CONVEYOR BELTS AND TRANSMISSION BELTS
for all sorts of Machinery and conditions of service

Gutta Percha & Rubber, Limited

Manufacturers of Mechanical Rubber Goods of all descriptions

Head Offices and Factory - - TORONTO

BRANCHES IN ALL THE LEADING CITIES OF THE DOMINION

Made in Canada Conduit

For
Electrical
Wiring

Labelled under Supervision of Underwriters' Laboratories

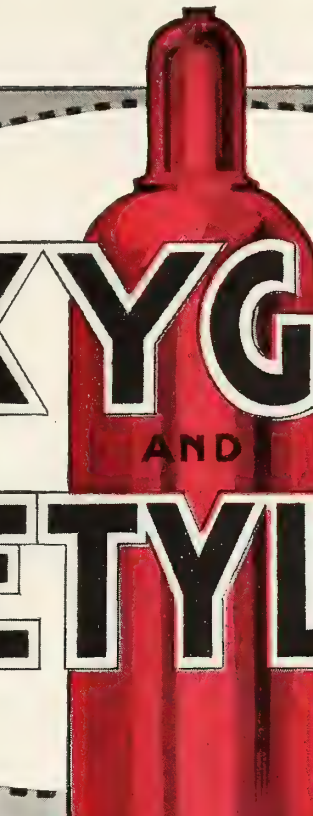
XCELADUCT

GALVANIZED

Manufactured by

National Conduit Company, Limited

Toronto



Guaranteed Purity Reliable Service

OXYGEN AND ACETYLENE

BLOWPIPES - REGULATORS
FILLING RODS - FLUXES
ACCESSORIES

L'AIR LIQUIDE

8 FACTORIES IN ACTUAL OPERATION AT
HALIFAX-MONTREAL-TORONTO-LONDON-SUDBURY
WINNIPEG-CALGARY-VANCOUVER

Additional Factories in course of Erection



ANNOUNCEMENT

Our new plant at London, Ont., is now operating at full capacity.

All Oxygen orders for consumption in the London district and in Western Ontario will, from now on, be executed from London, and our customers will derive the full benefit of the saving in freight while being assured of an unsurpassed service.

(All orders for Ontario to be sent as usual to our Toronto Office, Confederation Life Building)



CAP AND SET SCREWS



Cap Screws---
V. U.S.S. and S.A.E.

Set Screws---
V. and U.S.S.

Plain and Castellated Nuts---
S.A.E.

Semi-Finished Nuts---
U.S.S. and V.

SPECIAL SCREW PRODUCT UP TO 2¼ in. DIAMETER

What are your requirements?

Owing to the market shortage of raw material it is to the customers advantage that they anticipate requirements as far ahead of use as possible.

THE NATIONAL ACME COMPANY
MONTREAL P.Q.

Ormsby



Rolling Steel Door

FIREPROOF DOORS TO THE UNDERWRITERS' REQUIREMENTS

YOU may have conditions for which one particular type of door is peculiarly suited. You should have this door. Write us, because we are the one concern in the country that makes a full line. No matter what the conditions are, we can satisfy ***you and the Underwriters*** and give you goods that have exclusive features.

Our goods, be they ***Tin Clad, Rolling Steel or Kalameined Clad Fireproof Doors*** are goods that mean the maximum reduction in Insurance Rates—not a partial reduction—real Fire Protection and efficient service. Let us quote you on your Fireproof Door, Window, Skylight and Sheet Metal Requirements.



Sliding Tin Clad Door

THE A. B. ORMSBY COMPANY, LIMITED

Associated with The Metal Shingle and Siding Company, Limited
Factories at: Toronto, Preston, Montreal, Winnipeg, Saskatoon, Calgary

AGENTS:

MARITIME PROVINCES—F. A. Gillis & Co., Halifax, N.S. BRITISH COLUMBIA—A. T. Chambers, Vancouver

CONDULETS



Between Your Plant and Destruction

CONDULET your plant and thereby safeguard it against explosions or fires from electrical causes.

With the Crouse-Hinds catalogs as a guide, you can select a Condulet for each and every outlet and be sure that you are following approved safety-first practice. The importance of such a precautionary inspection is self-evident. Catalogs sent upon request.

CROUSE-HINDS COMPANY
OF CANADA, LIMITED
TORONTO - CANADA

Panel Boards **Knife Switches**
Guy Anchors **Condulets**
Flood Lights

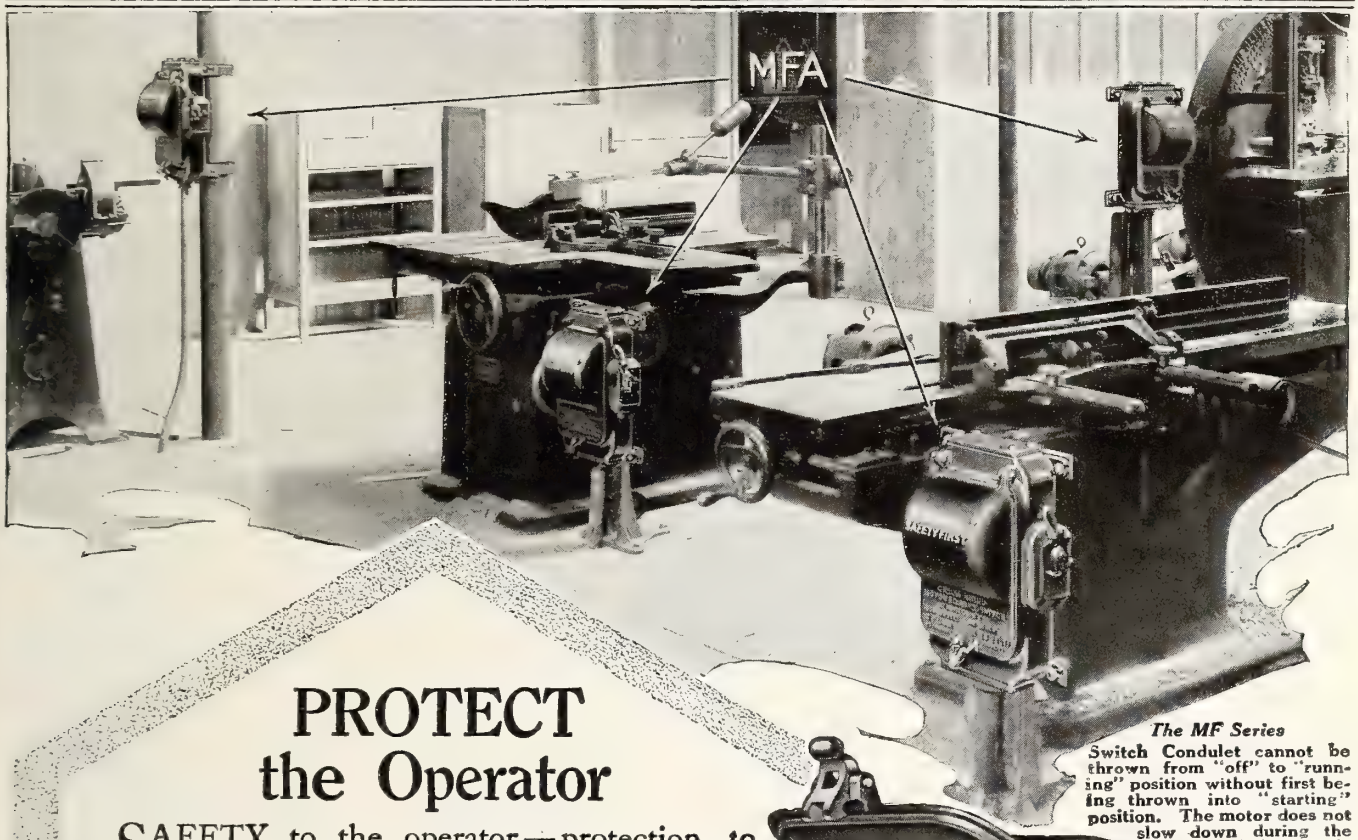
V and VH CONDULETS

They remain vapor, gas and dust-proof even though globes be removed for lamp renewals or are broken.

Condulet the Job

CROUSE-HINDS

CONDULETS



PROTECT the Operator

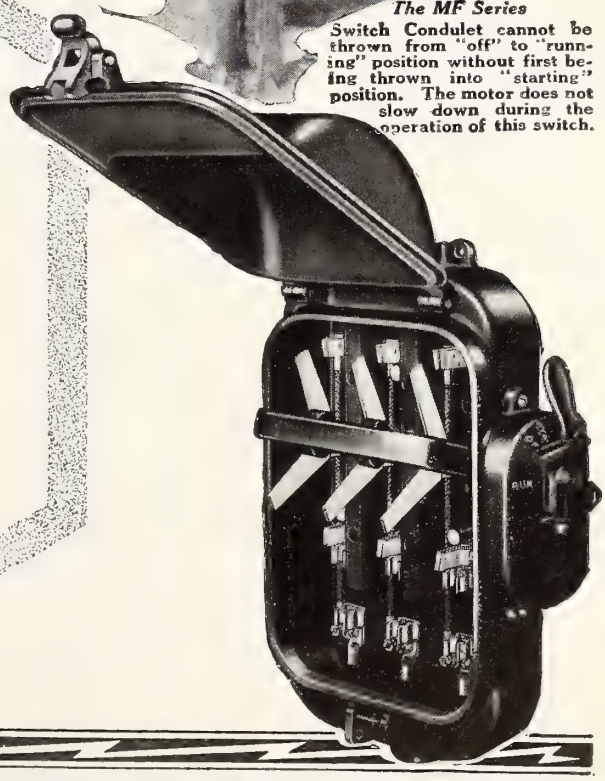
SAFETY to the operator—protection to your plant—are both obtained by the use of Crouse-Hinds Motor Starting Switch Condulets.

The iron-clad housing makes it impossible for the operator's hands or clothing to come in contact with live metal parts, which is an ever-present danger where an exposed knife switch is used.

Every plant with motor driven machinery should have the Crouse-Hinds Safety Bulletins at hand; write for them today.

CROUSE-HINDS COMPANY
OF CANADA, LIMITED
TORONTO, CANADA

The MF Series
Switch Condulet cannot be thrown from "off" to "running" position without first being thrown into "starting" position. The motor does not slow down during the operation of this switch.



Condulet the Job

CROUSE-HINDS

PANELBOARDS · KNIFE SWITCHES · GUY · ANCHORS · CONDULETS · FLOODLIGHTS



CORRECT REFLECTING IS EASY TO OBTAIN



Hubbell Reflectors may be installed on either brass shell or porcelain sockets, and are also provided with lamp receptacles for indoor or outdoor pipe conduits.

The Shape, Size and Finish of Hubbell Reflectors

are clearly illustrated in the Hubbell Catalog. Diagrams at the top of each page show the direction and general distribution of light rays from each type listed. The proper holders for indoor or outdoor uses are pictured in a column on the left.

Thus it becomes a simple matter to select the correct reflector for every purpose. Re-arrangement of lighting fixtures is often unnecessary, as with Hubbell Reflectors it is practicable to leave the **lamp** where it is, yet put the **light** where you want it.

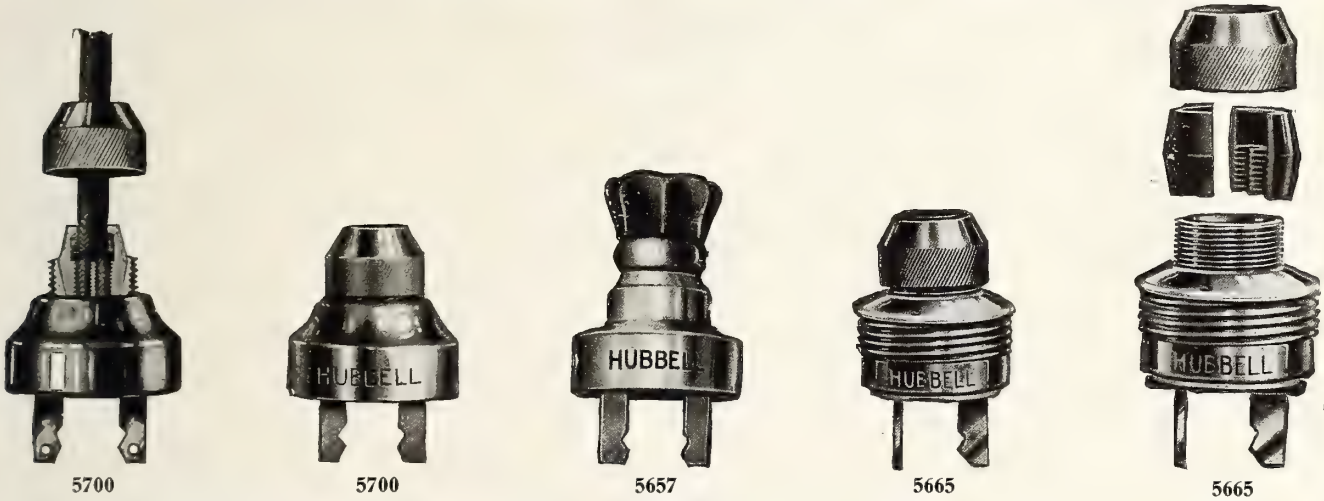
Correct Reflecting means better lighting, better workmanship, higher morale—it talks in big figures on the Profit side.

A copy of the booklet: "Hubbell Reflectors for Industrial Plant Lighting," is ready for you. You will find it interesting, for it solves your lighting problems without involving a huge expense for alteration and re-wiring.

T 1994

HARVEY HUBBELL COMPANY
OF CANADA LIMITED
ELECTRICAL SPECIALTIES
TORONTO CANADA





5700 5700 5657 5665 5665

"KNOSTRAIN" CAPS

We make a complete line of standard caps, plugs, receptacles, sockets, reflectors, lamp guards. Our catalog explains the line and gives prices. May we put a copy in your hands?

Sometimes a yank on the cord is quicker than withdrawing the cap with the fingers.

But the man who does the yanking isn't considering whether or not the cap will stand such handling.

He wants to get it out in a hurry.

So, with the ordinary cap, the wire is often dragged from the contact screws, the line is short circuited and work stopped until a new fuse can be put in.

But if you have equipped your plant with "Knostrain" caps, all the yanking in the world won't injure them. The bushings take up the strain, clamping down tight on the wires, and relieving the contact screws.

Your men save time, and you save the value of the time they save. Thus everybody's satisfied.

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HARVEY HUBBELL COMPANY
OF CANADA LIMITED
ELECTRICAL SPECIALTIES
TORONTO CANADA

HUBBELL REG. CAN. PAT. OFF.



Safety First



In the Oil Room

Safety from fire—safety from loss of oil and time—means using

BOWSER Oil Storage Equipment

Bowser Equipment is practically fire-proof. Handling of oils is done mechanically, with a wonderful saving of floor space, time and oils. It keeps all the oils clean and fit for use. Enables keeping of accurate records. *We have some interesting literature. It's yours for the asking, Write for it today.*

LONDON
32 Victoria St., S. W. 1

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Offices in Principal Cities of the United States

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Creighton—Where "Nickel Service" Begins

THOUSANDS of tons of nickel ore are hoisted daily from the 1,400 foot shaft at Creighton—the largest nickel mine in the world.

No other mine has finer, more modern or more complete equipment.

In no mine in the world do the workers find at their disposal more facilities for efficient and rapid output or more conveniences which make for their comfort and well-being.

"Nickel Service" is a byword wherever men buy metal, and the Creighton Mine, with its magnificent equipment and highly efficient operation, is in a large measure responsible for this.

INCO NICKEL

INCO Nickel is sold as shot, high and low carbon; ingots, 25 and 50 lb. sizes; and electrolytic nickel, 99.80%. Prime metals for the manufacture of Nickel steel, Nickel silver, Anodes, and all remelting purposes.

It is also produced as rods, sheets, strip stock, wire and tubes.

INCO MONEL METAL

The name MONEL is given to a line of metal products developed from a natural alloy—67% nickel, 28% copper, and 5% other metals. These products include Monel rods, Monel castings, Monel wire, Monel strip stock, Monel sheets, etc.

Monel Metal withstands alkalies, high temperatures, most acids, and erosive action of gases and superheated steam. Can be forged, cast, rolled, drawn, machined, brazed, soldered and welded. Takes and retains a perfect nickel finish.

Monel Metal may solve your difficulties—our Technical and Sales Departments will gladly co-operate with you.

The International Nickel Company of Canada, Ltd.

HARBOUR COMMISSION BUILDING
TORONTO, ONT.

INCO MONEL METAL TRADE MARK

INCO NICKEL TRADE MARK



The Policy Behind the Goodyear Cord Tire Built This *Better* Hose

MORE motorists would not be riding on Goodyear Tires than on any other brand, if Goodyear scientists had been satisfied with orthodox methods of tire building.

Neither would Goodyear Industrial Hose possess the qualities that enable it to give longer, more satisfactory service, if old-fashioned methods had been followed in its construction.

Modern industry's methods were studied exhaustively to ascertain the conditions industrial hose must meet in use. Then new formulae were created, new and more exacting standards set—resulting in a better hose, capable of standing up under the severest service.

The long service given by Goodyear Air Drill and Goodyear Pneumatic Tool Hose in mines, quarries, shipbuilding yards and structural work—where it is dragged over rocks and steel girders, beaten by ore and building materials—is evidence of the thoroughness of construction of all Goodyear Industrial Hose.

The cover on any air drill or pneumatic tool hose is prominently responsible for the life of the hose. The extra-heavy cover of tough, white rubber on Goodyear Air Drill and Goodyear Pneumatic Tool Hose resists wear and greatly prolongs the life of the hose.

Inside this hard-wearing cover is a special, oil-resisting inner tube, and a fabric of such strength that five-ply is found as satisfactory as six or seven-ply of old-style hose.

Records of Goodyear Air Drill Hose giving from 18 months to 2 years' service are in our files. We have similar records of long, satisfactory service and lessened hose costs, due to the use of Goodyear Industrial Hose in other classes of work.

Let a Goodyear man specify the particular kind of Goodyear Industrial Hose that will lessen hose costs in your plant. No obligation. Phone, wire or write the nearest branch.

The Goodyear Tire & Rubber Co. of Canada, Limited

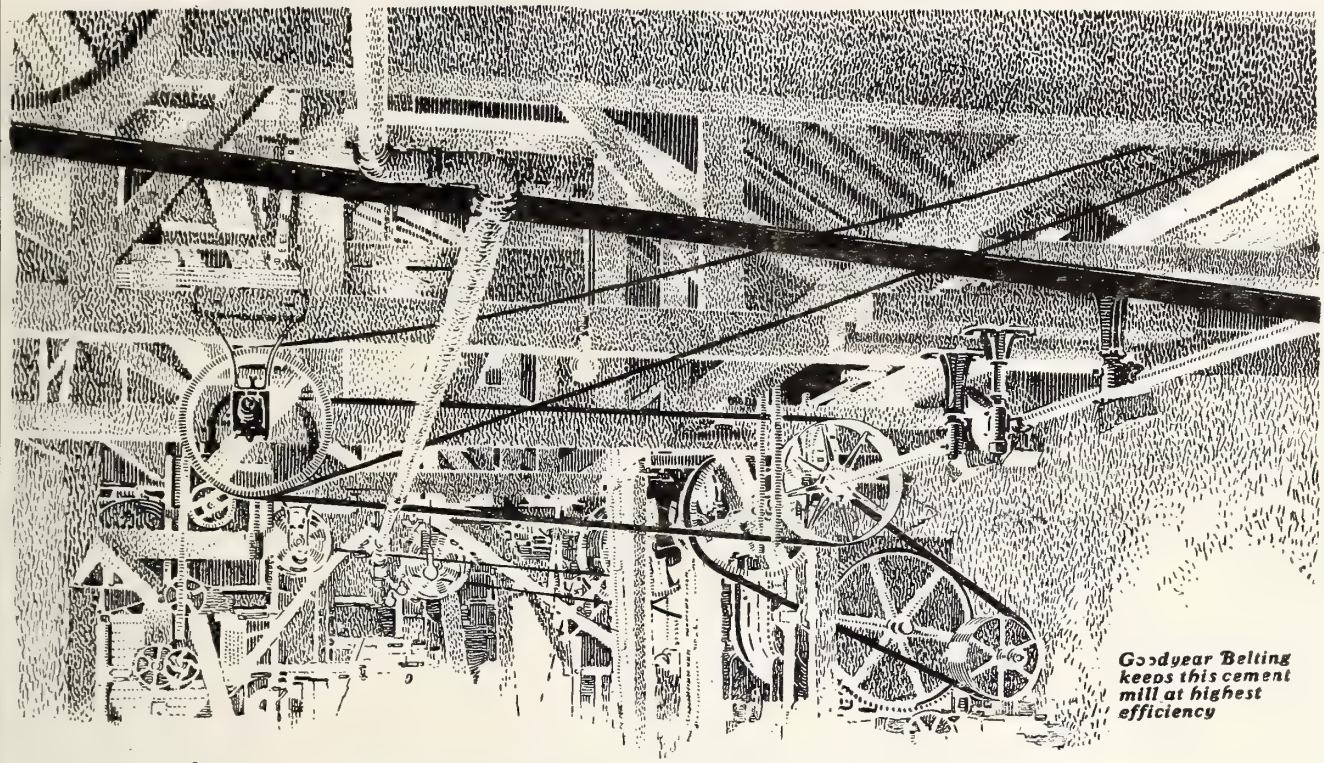
BRANCHES—Halifax, St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver. Service stocks in other cities





GOODYEAR
MADE IN CANADA

INDUSTRIAL HOSE



Goodyear Belting keeps this cement mill at highest efficiency

Troublesome Small Pulleys

Have you trouble getting belts flexible enough for small pulleys, yet strong enough to last?

Goodyear has produced Extra Power Belting—belting flexible enough that it need not be too tight! Gripping enough to prevent slipping at any speed!

For this is 5-point belting.

1. It is extremely strong, because of specially-designed, properly-woven fabric.

2. Yet it is very flexible, for it is not stitched, but is welded together with high-grade rubber, forced through and through the fabric and surrounding every thread. It hugs even small pulleys.

3. It has a friction surface which *grips*, dry or damp, and needs no dressing.

4. It has a seam *sealed* tight with high quality rubber.

5. The same rubber which gives Goodyear Extra Power its flexibility, prevents ply separation, even when the edge is worn or torn by shifters or accident.

The list of satisfied users of Goodyear Extra Power Belting on small pulleys is very great—too long to print here. But a few are:

O'Neil Morkin Machinery Co., Edmonton, Alta.
MacEachern Milling Co., Wetaskiwin, Alta.
Silver Standard Mining Co., Ltd., New Hazelton, B.C.
Hollinger Consolidated Gold Mining Co., Timmins, Ont.
Tilbury Flour Mills, Tilbury, Ont.
Chisholm Milling Co., Toronto, Ont.
Essex Canning Co., Essex, Ont.
Border Cities Tool Co., Windsor, Ont.
Brechin Roller Flour Mills, Brechin, Ont.
Nipissing Mining Co., Cobalt, Ont.
St. George Pulp & Paper Co., St. George, N.B.
Ungar's Laundry & Dye Works, St. John, N.B.
Ganong Bros., St. Stephen, N.B.
Robb Engineering Works, Amherst, N.S.
Ed. Sinclair Lumber Co., Newcastle, N.S.
O'Brien, Limited, Nelson.
Dominion Pulp Co., Chatham.
Richard's Mfg. Co., Campbellton.

Any one of these firms will be glad to tell you of their experience with Extra Power. Or a Goodyear Belting man will call without obligation to you. Phone, wire, or write the nearest branch.

The Goodyear Tire & Rubber Co. of Canada, Limited

Branches—Halifax, St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver. Service stocks in smaller cities.

GOODYEAR

MADE IN CANADA

EXTRA POWER BELT



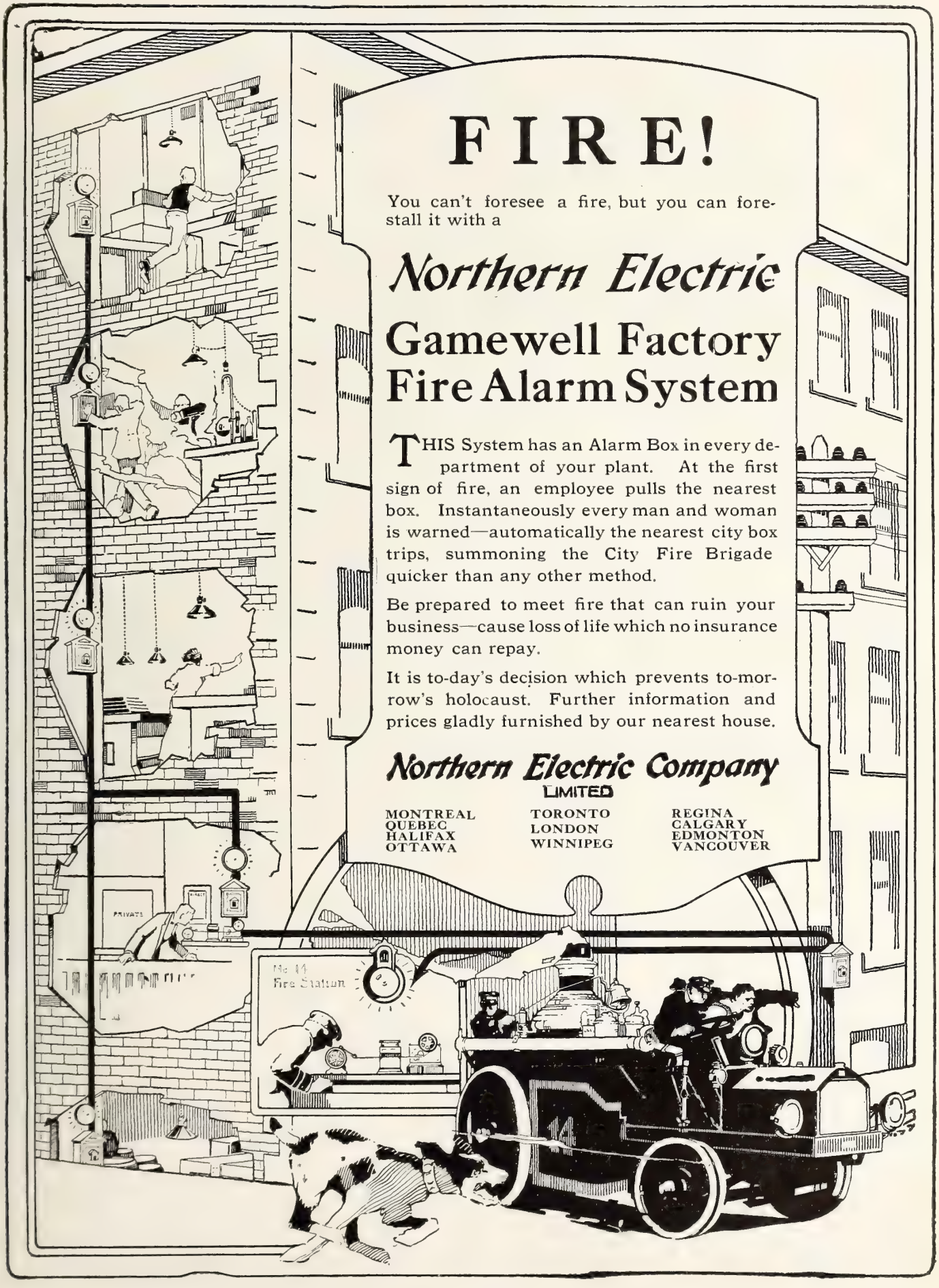
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Industrial Canada

ISSUED BY

The Canadian Manufacturers Association
INCORPORATED

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Editorial Comment

The Annual General Meeting

AS usual, the July number of INDUSTRIAL CANADA will be devoted to the publication in full of the proceedings at the annual general meeting of the Association in Vancouver and Victoria. Because of the long distance and the difficulty of transmitting news by wire, it is hardly possible that members in Eastern Canada will be able to get that thorough knowledge of what takes place that is so essential to the spirit of good membership. This need, the Association's own official publication will supply, and it is to be hoped that all members will make it a point to look out for the July number and give it a thorough reading. Committee reports were never more comprehensive or more important and the debates, resolutions and speeches will be equally valuable. All these will be supplied in full in the July number.

Annual Meetings of Divisions

DURING the past few weeks, and as a preliminary to the annual general meeting, the five divisions of the Association have held their annual meetings. This is the first year that the new machinery of organization has become effective, and these gatherings were in a sense a testing-out of the new system. It may be stated that the experiment has proved to be a success. Members in the various provinces have rallied loyally to the support of the new bodies, which have been formed to care for the needs of their particular section of the Dominion, and there is every reason to believe that, through the agency of the division, the work and services of the Association will be greatly extended. There is much work that can only be effectively handled by the men on the spot, and the better organized the members become the more valuable will be the results. The strengthening of the divisions and the building up of live branches in all the cities of Canada will be a desirable objective towards which to work.

In this issue of INDUSTRIAL CANADA will be found reports of the proceedings at the various annual meetings of the divisions. These are given as fully as possible, though in some cases the near approach of the annual general meeting has made it difficult for the divisional secretary to provide as complete a report as might have otherwise been given. However, it is desirable that members who were not present at the meetings should post themselves on what was done. Only in this way will the work receive that backing which it requires.

Pass Along a Good Word

WHENEVER opportunity arises, members of the C.M.A. should pass along a good word about the organization. If one of the departments renders you some service which you deem of value, let somebody else know about it. Not only may this result in bringing in new members whose presence and support will strengthen the Association but it will help to build up that reputation for prompt, effective service which is the objective of the officials of the organization. Many people, whose knowledge of the C.M.A. is but superficial, have an altogether erroneous idea of the kind and scope of the work being done. All the more reason, therefore, for members to tell about what the Association has done for them.

Showing Educational Films

IN a recent bulletin issued in connection with their moving picture laboratory, the Ford Motor Company of Canada, Limited, stress the importance of compelling the theatre interests to exhibit films of an educational character. This, they urge, is the essential part of the whole business. Both the Dominion Government and the Ontario Government have established moving picture bureaux, with the object of advertising the resources and industries of the country, but it has remained for the

British Columbia Government to go a step further and require the exhibiting of educational films by law. They have introduced in the Legislature a measure requiring all moving picture theatres to exhibit for fifteen minutes during each performance films provided by the provincial bureaux. These films are to be of an educative character illustrating the natural resources and economic and industrial problems of British Columbia, as well as dealing with general Canadian events of interest.

"The measure now before the British Columbia Legislature," states the bulletin, "is a very wise and commendable step on the part of the Government, and sets an example which the other provinces could very profitably afford to follow. As a rule the attraction of this class of picture has induced theatre managers to voluntarily present them interspersed between regular films, but, as previously pointed out, no one is, compelled to exhibit them, consequently the appeal is lost to thousands to whom they would convey helpful knowledge and ideas.

"Provincial, Dominion and municipal governments are not making the advertising use of their films which they could and ought to do, as besides being attractive the use of the film must be effective, but the British Columbia Government has pointed the way, and it is to be hoped that before long the rest of the provinces will follow suit."

Good work is being done by the Ford Motor Car Company themselves in advertising the Dominion by film. At the present time they have two photographers travelling from coast to coast of the Dominion securing topical material for reproduction, and this is distributed very widely not only in Canada but in other parts of the world.

The End of National Borrowing

HOWEVER much divergence of opinion there may be over the terms of Sir Henry Drayton's budget, there is one feature that seems to have struck a responsive chord in the hearts of the people. That is the determination expressed by Sir Henry to end the period of borrowing and inaugurate a new period of "-pay-as-you-go."

The country has now experienced a long series of popular loans, culminating in the Third Victory Loan of 1919. In fact, the annual loan seemed to give promise of becoming a fixture in the financial calendar. From the investment standpoint, these flotations were very nice. They yielded attractive rates of interest and, estimated in the usual way, were gilt-edged. But, with each successive loan, the burden of interest payments, not to mention desirable sinking fund arrangements, was becoming heavier and heavier and the outlook more alarming. Now, Sir Henry calls a halt and his leadership in this regard is acknowledged by all loyal Canadians.

If, as is anticipated, the Dominion can not only meet current expenditure out of revenue but have enough over to retire the 1922 Victory Loan bonds at maturity, no better achievement could be recorded in the interests of national credit. There would be substantial improvement in the status of Canadian securities in the United States. There would be an increased flow of capital to our shores. The unfavorable exchange situation would right itself and a great impetus would be given to business enterprise throughout the country. Let us therefore acclaim the determination of the Minister of Finance to stop the orgy of borrowing that has piled up a national debt of such gigantic proportions.

The Impartiality of Third Parties

COMMISSIONS or conferences in which employers, employees and the Government, as representing the public, are concerned should be so constituted as to ensure the fairest possible conclusions. Particularly is it desirable that third parties should be as thoroughly impartial in their attitude towards the question coming up for decision as it is possible for them to be. Much accordingly depends on Government representation, forming as it should the intermediary between the possible extreme of the other two parties.

When labor problems come up for consideration and settlement, it is fairly natural that Governments should call upon their departments of labor to sit in at the proceedings. These are the departments that have been formed for the purpose of studying these very problems, and the public would naturally regard them as the proper parties to look after the public interest in any differences between the interests of capital and labor.

Unfortunately, in numerous cases, the representatives of the labor departments of Governments are labor leaders who have gravitated into the civil service. However well-intentioned they may be, their training and experience alike give them a natural bias of mind towards their former associates. They are prone to see questions from the labor standpoint, and they often fail to shake off the unfortunate spirit of antagonism towards employers which characterized their attitude before. It is no fault of theirs and yet, even the employees must see that a conference in which such men are sitting, is obviously bound to have a preponderating influence in the one direction.

It is to be hoped that in future all possible efforts will be made to secure complete impartiality on the part of Government representatives. Not only should this be so in justice to the two parties who may be at variance, but in justice to the public, who are anxious that those who ostensibly represent them should be entirely fair in their attitude and dealings.

The Situation at Ottawa Reviewed

Return of Sir Robert Borden Has Steadied the forces of the Government—Introduction of the New Budget an Event of Paramount Importance—Representations Are Being Made to Secure Modifications of Certain of Its Aspects

By Industrial Canada's Parliamentary Correspondent

OTTAWA.—The outstanding features of Parliament during the past month were the resumption of House leadership by the Prime Minister, Sir Robert Borden, Sir Henry Drayton's first Budget and an announcement by Hon. Mr. Ballantyne that no election is expected before 1922.

The long rest which Sir Robert enjoyed appears to have completely repaired the damage wrought by his heavy work at the Peace Conference. Since his return to Ottawa, Sir Robert has been in his place in the House every day, has been alert to the business of Parliament and shown himself handling every phase of house leadership under the rather trying pressure of the Budget debate. His return has steadied the forces of the Government immeasurably, and appears to have put an end to the uncertainty which rather characterized the Government during his absence when he was expected to return only to resign, and when there was some rivalry among members of the administration for succession to the premiership.



Sir Robert Borden

Whose Return to the Active Leadership of the Government was an Important Event in Parliamentary Circles during May

The new Budget is conceded to be one of the most remarkable ever disclosed to Canadians. It announced a heavy national debt, a heavy expenditure, a very large Government income and severe taxation. But it showed, on the whole, that Canada is in a strong and sound position, far better than most of the other countries of the world.

While there has been a demand for tariff reduction, chiefly from western members, the Budget has not been altogether unpopular with the Opposition.

Expenditure for the present year will be heavy, but the Finance Minister was able to show that he could not only take care of this, but would be able to wipe out a floating indebtedness of some seventy-four millions.

The new taxation proposals have attracted great attention, both in Canada and abroad. Outside comment has been generally favorable to the plan of raising revenue, and Canada has been commended for having courage to collect for her needs from those able to pay and for equitably distributing the burden among the various classes of the country.

In Canada there has been considerable criticism of details. Some business classes feel that they have been rather severely dealt with by the new Luxury Tax. But, even with these classes, there is a feeling that the Government had to have the revenue; that both the Luxury Tax and the One Per Cent. Sales Tax were experimental; that they were, in a measure, offered by the Finance Minister for criticism; and that adequate representations will be considered by the Government and that there will be some modifications of the measure when it is in the committee stage.

There is heavy pressure for modification of the taxation proposals which apply to articles of clothing and to pianos. Dealers contend that boots at nine dollars and clothes at forty-five dollars are not luxuries under present market conditions for wool and leather and that the minimum for exemption should be raised. The Government has given no public indication that it is not willing to be influenced by reasonable representations.

There is no doubt that these representations are being made. Delegation after delegation has come to Ottawa to put their case before the Government. All have been listened to, and consideration promised every request. In addition to the representations that have been made in person, ten times as many have been made by mail and wire.

The managers of taxation for the Government have been surprised at the number of unexpected places their new measures have hit. They have, by this Budget, been brought more intimately into touch with the intricacies of business than by any taxation measure devised in the past. The past two weeks have witnessed an astonishing amount of disclosure to the Government of business methods and systems, and this has probably been a good thing for both business and the Government. Intimate touch has been established.

An examination of the Budget shows a tendency from and toward direct taxation. By discontinuing the seven and a half per cent. Customs War Tax, the Government abolished about thirty-four millions of indirect taxation. By the imposition of the One Per Cent. Sales Tax and the Luxury Tax

the Government is imposing about a hundred million dollars direct taxation. This is a substantial change in the taxation principles of Canada, which, in the past have been overwhelmingly for the indirect method of taxation through customs collections.

While the new method of direct taxation is obvious to the consumer, and by this time almost everyone in the country has knowingly paid a luxury tax, very little complaint has been reported to the Government by dealers. Purchasers of luxuries appear to have accepted complacently the requirement placed upon them of contributing to the Dominion Treasury, and make little protest against the taxation item on the sales slips rendered to them for payment.

The reduction of the Business Profits tax was not all that was asked for and many sound judges believe that it was not all that was required. However, it is estimated to amount to a cut of forty per cent. in the burden that business profits have had to bear for the past four years, and has been welcomed by business as a measure of relief which, it is hoped, will be increased in the next Budget.

Scientific Revision of Tariff.

The Government has been congratulated for the announcement that the business conditions of the country were to be studied with the view of making a scieneific revision of the tariff, and having it ready for next session. There is a feeling that the country had outgrown its customs law and that there should be a more scientific adjustment of it, as Sir Henry Drayton stated: "(*a*) To assist in providing adequate revenue, (*b*) to stabilize legitimate industries and to encourage the establishment of new industries essential to the proper economic development of the nation—to the end that a proper and ever-increasing field of useful and remunerative employment be available for the nation's workers, (*c*) to develop to the fullest extent our natural resources, (*d*) to specially promote and increase trade with the Mother Country, the sister dominions and colonies and Crown dependencies, (*e*) to prevent the abuse of the tariff for the exploitation of the consumer and, (*f*) to safeguard the interests of the Canadian people in the existing world struggle for commercial and industrial supremacy. As a means of raising revenue the tariff should be so adjusted as to place the chief burden upon those best able to bear it. Articles of luxury should be heavily taxed through the imposition of customs and excise rates. Food commodities and other necessities of life, not produced or manufactured in Canada, should, if taxed at all, bear only such imposts as are necessary for revenue purposes. Those produced in Canada should be subject to such customs duties only as may be necessary in the general national interest to be determined after strict investigation from time to time."



J. H. Baetz
Baetz Bros. Co., Kitchener
Chairman, Kitchener and Waterloo Branch

These are the principles laid down by Sir Henry for the new tariff that he has to prepare, and upon which representations will be in order as soon as the present Budget is through the committee stage and has been embodied in a statute.

Prorogation is expected before the first of July.

Kitchener and Waterloo Branch is Organized

By J. M. McINTOSH
Manager, Trade Sections Department, C.M.A.

On the evening of the 3rd of May last a well attended meeting of manufacturers of Kitchener and Waterloo was held in the Library Hall, Kitchener, for the purpose of considering the advisability of forming a branch of the Association to consist of the members in Kitchener and Waterloo and such contiguous territory as might be within a convenient radius. The following manufacturers were present: Messrs. W. T. Sass, F. S. Hodgins, S. J. Williams, J. H. Baetz, L. J. Breithaupt, Geo. Lang, J. Woolner, T. A. Witzel, H. M. Snyder, J. H. Kennedy, J. M. Schneider, C. A. Ahrens, W. E. Woelfle, D. Groos, Jr., O. Kinzie, W. H. Hamblin, E. Schlee, G. B. Brown, G. R. Roschman.

Mr. J. E. Walsh, general manager, and Mr. J. M. McIntosh, of the head office staff, attended and explained the proposal in detail.

Matters of local interest to manufacturers are being well covered by the Kitchener and Waterloo Manufacturers' Association. This latter Association is splendidly organized and equipped to render very valuable services to its members. It has been felt, however, that some of its activities, if given the support of the larger Association, might serve the purpose of further developing the important work which both these Associations are covering. In addition to this, through a local branch the members will be brought into closer touch with the activities of the Association as a whole.

It was, therefore, resolved that a branch be organized and that application be made for the necessary authority, the secretarial service to be supplied by head office, one of the official staff visiting Kitchener and Waterloo for one or two days in each month.

Mr. J. H. Baetz, of Baetz Bros. Company, Kitchener, was elected chairman, and Mr. H. M. Snyder, of Snyder Bros., Upholstering Company, Waterloo, vice-chairman. A nominating committee was appointed to bring in a report suggesting names of representatives of different lines of industry in the district out of which the personnel of the Executive Committee may be selected.



H. M. Snyder
Snyder Bros. Upholstering Co., Waterloo
Vice-Chairman, of the new Branch

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Annual Meeting of Ontario Division

By H. MACDONALD
Secretary, Ontario Division

MOST gratifying in every respect was the first annual meeting of the Ontario Division of the Association, held at the King Edward Hotel, Toronto, on Thursday, April 29. The attendance was very satisfactory, while the interest shown in the proceedings abundantly demonstrated the value of such an organization to the membership in the Province.

Luncheon was served at 12.30, following which the meeting was convened under the chairmanship of John R. Shaw, Woodstock, vice-chairman of the Division. A number of letters and telegrams were read from members in different parts of the province, expressing their regret at being unable to attend, among them a wire from the chairman, George H. Douglas, who was in Calgary on his way east from California. Mr. Douglas sent his best wishes for the success of the meeting.

Secretary's Report

The Secretary's report was then presented. This gave an outline of the work of the Secretary's Department, from the inauguration of the Division down to the end of the first year of its existence. It read as follows:—

"At a conference of representative Ontario members, held in the National Club, Toronto, on March 25th, 1919, a resolution was unanimously carried:

" 'That this meeting, having regard to the problem of increasing the membership of the Association, recommend to the Executive Committee the advisability of creating a provincial organization, to be known as the "Ontario Division" of the Association, to include present branches or sub-branches in Toronto, Hamilton, Niagara Falls and Brantford, and any additional branches which may subsequently be organized to deal with matters having a provincial application, leaving to the local organization such matters as affect them locally, and that the By-laws of the Association be amended and enlarged accordingly.'

"Messrs. Roden, Breyfogle, Kinzinger and Champ were then appointed a committee, with powers, to make all necessary arrangements.

"At a meeting of the Toronto Branch Executive, held on 23rd April, your Secretary was instructed to transmit the above recommendation for the approval of the General Executive Committee. This being obtained, it was submitted to the annual general meeting, held in Toronto in June last, and unanimously adopted, the membership of the Association being divided into five Divisions, and, by amendment of the Association By-laws then passed, members located within the Province of Ontario were created the Ontario Division of the Association without, however, affecting the Branch organization as at present constituted—the Special Committee at the same time reporting that the formation of branches in all the chief industrial centres would do much not only to increase the membership but also to stimulate thought on industrial matters.

"Pursuant to the above proceedings, the first organization meeting of the Division was held in the King Edward Hotel on October 16th last, when an Executive Committee was appointed and the necessary organization effected.

"Three new branches were organized during the past year, each at Niagara Falls, Peterboro and Brantford, making in all five local branches within the Division, which, in the order of date of inauguration, respectively, with their membership, are as follows: (1) Toronto, 920 members; (2) Hamilton, 238 members; (3) Niagara Falls, 26 members; (4) Peterboro, 35 members; (5) Brantford, 40 members.

"All these branches were visited by officers from the head office of the Association, who report in each case an active interest in the work of the Association and a greatly increased demand for the services of its departments. The establishment of additional branches is receiving consideration.

Gain in Membership

"The Division played its part in a special membership campaign started during the week, December 1st-6th, which brought a net increase to date of 163 members to the Division. The Ontario Division membership is now 2,121 firms and corporations. The total membership of the Association is 4,046.

"The possible revenue receivable from fees in the territory allotted to the Division is $81,370.00, or 55.91 per cent. of the possible revenue from fees of the Association as a whole.

"While the activities of the Division have covered only a portion of the year, it is believed the members generally will share the feeling that the work which has been, and is being, performed fully justifies the establishment of the Ontario Division as a forward step towards the more intensive organization of the Association.

"It is the unfailing desire of the Executive staff to extend the welfare of the departments under their charge. Every vexatious question, large or small, is of some importance and has generally a more or less relevant bearing on the industrial situation. No member of the Association should shrink from consulting any of our officials at any time on any matter of doubt or difficulty."

Report of Executive Committee

A comprehensive report on the work of the Division since its inception was then presented. As this gives a very complete record of the Division's activities, it is published practically in full, as follows:—

"October 16th, 1919, marked the birth of the Ontario Division. On that date, the organization meeting was held and a Division Executive Committee was chosen to guide the affairs of the Division for its first year, Mr. Geo. H. Douglas, of Hamilton, being elected Chairman, and Mr. J. R. Shaw, of Woodstock, Vice-Chairman, both by acclamation. Mr. H. Macdonald, Secretary of the Toronto Branch, was appointed by the General Executive Committee Secretary of the Division.

"Immediately thereafter a resolution was passed, authorizing the Executive Committee to elect sub-committees.

"At a meeting of the Division Executive, held on December 18th, the following sub-committees were appointed, namely:

1. Education Committee—10 members.
2. Legislation Committee—10 members.
3. Transportation & Power Committee—15 members.
4. Publicity Committee—10 members

with Messrs. J. F. MacKay and J. J. Gibbons as associate members.

General Meetings

"Including the organization meeting, six general meetings of the Division were held, since its organization, as follows:

October 16th, 1919.—At this meeting, a resolution was passed that the Industrial Relations Committee be requested to report fully on the desirability of organizing a permanent Department of Industrial Relations to study the relations existing between employers and employees, to gather data, to supply information, and to be prepared to furnish expert advice and assistance in connection with any further industrial conference or otherwise.

November 27th, 1919.—An important address was delivered by Mr. Lloyd Harris, head of the Canadian Trade Mission to Great Britain, in which he explained that all countries were open for the import of Canadian manufactured goods.

December 18th, 1919.—Past President S. R. Parsons, who represented the employers of Canada at the recent International Labor Conference in Washington, from October 29th-November 29th, 1919, delivered an address, in which he explained why he had opposed the eight-hour day.

January 28th, 1920.—Mr. T. B. Macaulay, President of the Sun Life Insurance Company, Montreal, delivered an interesting address on "Canada and the West Indies." Mr. Macaulay emphasized the value of co-operation between the different parts of the Empire, which had always been desirable but which was now vitally necessary. He explained that out of a total import of $36,000,000, Canada received less than $7.000,000—less than 20 per cent., whereas the general average should not be less than 50 per cent. The West Indies Government, he said, was anxious for co-operation.

February 26th, 1920.—An address was delivered by Professor L. W. Gill, M.Sc., late of Queen's University, Director of Technical Education for Canada, on the operation of the Federal Technical Education Act. The agitation for an adequate system of technical education dates back to a period long before the war, and it has passed through many phases, but it was only through the lessons taught by the war that the urgency of the matter was so forcibly emphasized, that action became imperative. To the C.M.A. must be accorded a good deal of the credit for having forced the subject into prominence.

March 16th, 1920.—At a special meeting of the Division held on this date, consideration was given to a resolution of the Executive Council to enlarge and strengthen the organization and services of the Association, with a view to greater efficiency in the services of its departments. It was explained that commissions, boards and special investigating committees are making extraordinary demands from manufacturers, and it was thus necessary to enlarge all our departments, also to enlarge our library and translation department, and to introduce certain new services, which are now under consideration. The scheme was enthusiastically adopted by the Division in general meeting, and fuller information will be submitted at this meeting.

April 22nd, 1920.—At a general meeting of the Executive, held on this date, the Executive entertained representatives of the Alberta Industrial Development Association.

Meetings of Committees

"Seventeen committee meetings were held: six Executive, three Legislation, one Transportation and Power, two Special, two Conferences, and three deputations to the Provincial Cabinet.

"Eleven general circulars on various subjects were issued to members in the course of the year.

Hydro-Electric Power Commission.—Mr. C. H. Carlisle was nominated to represent consumers on a committee of approval, consisting of members of the Engineering staff of the Commission and several outside bodies, to deal with the question of the approval of electrical fittings, fixtures, devices, etc.

Publicity.—Consideration was given to the part the Division could appropriately take in any scheme of publicity, in the interests of the manufacturers, but as the proposition could not be considered without the necessary funds, it was referred to the General Association.

Tariff Board.—A resolution was transmitted to the Executive Council, recommending that a deputation wait upon the Dominion Government and urge the appointment of a permanent Tariff Board, its members to accompany the proposed Investigating Committee of Cabinet Ministers, if the same were appointed.

Electrical Power Situation.—Careful consideration was given to a report received from the Niagara Falls Branch, with respect to a decrease of the supply of power to manufacturers in the Niagara Falls District. Conferences with the Toronto Hydro Electric System and officers of the Hydro-Electric Power Commission of Ontario, with a view to devising a remedy, were held. A resolution on the subject will be submitted to this meeting at a later stage.

Workmen's Compensation

Workmen's Compensation.—Deputations from the Division Legislation Committee waited twice upon the Government, when various submissions were presented, chiefly on the subject of representation and reduction of accidents in the industries. Several meetings and conferences were also held on the subject of more active co-operation with the Accident Prevention Association and the Board, and the matter is still under advisement.

Board of Commerce.—The Board of Commerce, acting under the Board of Commerce and the Combines and Fair Prices Act, 1919, having filed a stated case for consideration of the Supreme Court of Canada to determine various questions of law and jurisdiction which had arisen before the Board, and which required to be solved before the Board proceeded to exercise the powers, which are said to be vested in it, it was recommended by your Legislation Committee that the Association be represented in the argument before

the Supreme Court by Mr. W. N. Tilley, K.C., Toronto, as special counsel, which recommendation was adopted by the Executive Council. Final judgment has not yet been handed down.

Moratorium Act.—The Legislation Committee communicated to the Attorney-General a recommendation that a repeal of the Moratorium Act should be delayed six months, after proper notice had been given.

Work of the Legislature

"Ontario's Legislature met on Tuesday, March 9th, being the 15th Legislature of the Province of Ontario. Perhaps the most important announcement by the Lieut.-Governor in opening the session was that as an outcome of the National Industrial Conference held in Ottawa and the International Labor Conference in Washington, in accordance with the terms of the Peace Treaty, at both of which gatherings the Province of Ontario was officially represented, the Federal Government has arranged for a meeting of the representatives of the Dominion and the various Provinces to consider the unification of the labor laws of Canada.

"Mr. Sam Harris, Chairman of the General Legislation Committee, has been appointed by the Minister of Labor as the employers' representative for the Province of Ontario—Mr. J. G. Merrick, Secretary of the Toronto Employers' Association, being appointed the employers' representative for the Dominion.

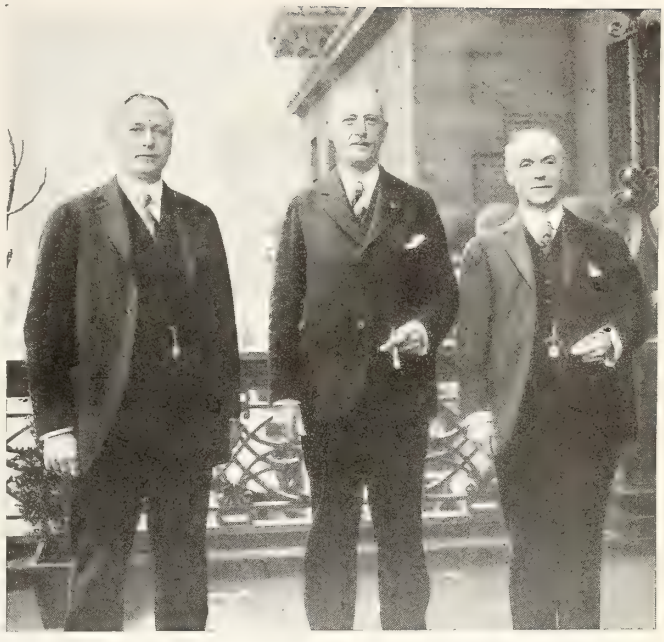
"Copies of the various bills passing through the Provincial House are regularly received by the association and are examined by the Legal Department and appropriate action taken; as are also the Federal bills, and also numerous bills from the outside provinces, on which the association's branch secretaries, and frequently members, wish to be advised. Some of the measures from time to time form the subject of review by the secretary in INDUSTRIAL CANADA.

"Changes in the educational policy of the Provincial Government are forecast, including larger grants to rural schools and extension of the consolidated school system. Plans are reported to have been matured for affording a greater stimulus to agriculture, and, as has been shown by the Ministers' announcement and answers to deputations, the 'good roads' policy will be extremely liberal. The forests and mines of Ontario will also receive much attention, with provision for fire protection and prevention, and advanced methods of reforestation. Other measures that will probably be considered are to adopt the municipal lists in place of enumerations for provincial elections; to provide for local option in taxation; to establish a Minimum Wage Board, and to amend the Workmen's Compensation Act; all of which will receive careful consideration by the appropriate committees of the division.

"Ontario has 23 cities, 139 towns, 150 villages and 553 townships. Here live over 2,000,000 people, prosperous, progressive, industrious—producing a third of all Canada's agricultural products, and more than one-half of its manufactures. Here is a market pulsating with the dynamic energy of great commercial achievements, covering 42,000 square miles, teeming with well-to-do buyers of every kind of merchandise. Industrially, Ontario may be said to be the backbone of Canada, as is shown by the following comparison:

Value of Ontario Products.

	Ontario.	All Canada.
Value of farm products	$ 450,000,000	$1,100,000,000
Value of mineral output	52,000,000	138,500,000
Value of timber output	50,000,000	172,500,000
Value of manufactu'd products	715,000,000	1,390,000,000
Total	$1,267,000,000	$2,801,000,000



Ontario Division's New Chiefs

In the centre stands John R. Shaw of Woodstock, elected chairman for 1920-21; to the left is W. C. Coulter vice-chairman; on the right Secretary Hugh Macdonald.

The annual product of Ontario's farms, mines, forests, industries, etc. (which under the tax power of the Province secures all Ontario Government bonds), would pay off the entire direct bonded debt of the Province over twenty-two times—and do it each year.

"When one considers the achievements of Ontario in connection with war efforts and views the rich and varied resources that await development within our great Province, in common with its sister provinces, we are encouraged to regard the immediate future with confidence and hopefulness."

Election of Officers

The election of officers for the ensuing year resulted as follows:

CHAIRMAN.

J. R. Shaw, Canada Furniture Manufacturers, Ltd., Woodstock.

VICE-CHAIRMAN.

W. C. Coulter, Booth-Coulter Copper & Brass Co., Ltd., Toronto.

EXECUTIVE COMMITTEE.

H. Barrett, Penman's, Limited, Paris.
W. R. Breyfogle, De Laval Co., Limited, Peterboro.
G. C. Cockshutt, Slingsby Mfg. Co., Ltd., Brantford.
W. Cowan, Cowan & Co. of Galt, Limited, Galt.
G. H. Douglas, Thornton & Douglas, Limited, Hamilton.
R. H. Easson, Otto Higel Co., Limited, Toronto.
H. W. Fleury, J. Fleury's Sons, Aurora.
E. H. Gurney, Gurney Foundry Co., Limited, Toronto.
Fred Hatch, Martin Mfg. Co., Limited, Whitby.
T. A. Hollinrake, A. R. Williams Machinery Co., Ltd., Toronto.
J. G. Hossack, Massey-Harris Co., Ltd., Toronto.
Wm. Inglis, John Inglis Co., Limited, Toronto.
Fred Kent, Seaman, Kent Co., Limited, Toronto.
G. M. McGregor, Ford Motor Co. of Canada, Ltd., Ford.
Thos. Roden, Roden Bros., Limited, Toronto.
H. J. Waddie, Canadian Drawn Steel Co., Limited, Hamilton.
C. R. H. Warnock, Galt Knitting Co., Limited, Galt.
S. J. Williams, Williams, Greene & Rowe Co., Ltd., Kitchener.
A. W. White, Geo. White & Sons Co., Limited, London.
F. H. Whitton, Steel Co. of Canada, Limited, Hamilton.

The Power Shortage

A good deal of time was taken up with a discussion of the shortage of hydro-electric power, several members expressing themselves quite forcibly on the subject. Included in the proceedings was the reading of a report on the

power situation at Niagara Falls, which had been prepared by a special committee of the Niagara Falls Branch. The upshot of the debate was the passing of the following resolution:

"Whereas, during the past winter a larger number of the members of this association have suffered very considerable loss as a result of the failure of the Hydro-Elctric Power Commission of Ontario to supply the amount of power contracted for—a single member having in ten weeks lost 36,000 hours' work;

"And whereas, such loss involves a most serious decrease in production at a time when the greatest possible production is imperatively necessary;

"And whereas, such loss falls not merely on the employers, but on the workers, who stand to lose the wages they would otherwise earn;

"And whereas, even if the special difficulties encountered in the past few months were overcome before another winter, there would still, unless adequate steps are taken, be a serious shortage, owing to the fact that many of the industries at present served, will require an increased supply and many other industries will be certain to need Hydro power;

"Therefore, be it resolved by this Ontario Division of the Canadian Manufacturers' Association, in annual meeting assembled:

"(1) That the above considerations be brought to the attention of the Hydro-Electric Power Commission, and that the Commission be asked to leave no stone unturned to meet the pressing need which so many industries feel of larger and surer supply of power;

"(2) That before new radial railway enterprises calling for the use of large quantities of power be entered upon, all existing contracts for power be fulfilled;

"(3) And that the Power Committee of the Ontario Division be authorized and empowered to appeal to the Provincial Government for the appointment of a Royal Commission to investigate and report on the production, distribution, and adequate supply of power in all parts of Ontario, so that the industries of the provinces may not be further impeded."

The Fuel Supply

A second resolution bearing on the development of Canada's fuel supply was also adopted by the meeting. This read as follows:

"Whereas Canada's dependence for fuel on foreign countries is increasing to the point of being, economically, a menace;

"And whereas no proper steps are being taken to develop Canada's vast fuel and power resources, in spite of the strongest recommendations made by the Dominion Fuel Controller, which recommendations were referred to the Advisory Council for Scientific and Industrial Research, and in spite of the fact that a Dominion Power Board and a Lignite Utilization Board were appointed over a year ago;

Therefore, be it resolved that the Dominion Government be petitioned to take immediate steps, in co-operation with the interested provinces, to formulate a comprehensive policy for the speedy development of Canada's lignite, peat and other fuel and power resources, with a view to removing the very real menace constituted by the country's present position of humiliating dependence on foreign countries.

Quebec Division in Annual Session

By R. W. GOULD

Secretary, Quebec Division, C.M.A.

QUEBEC Division's first annual meeting took place in the Association's Board Room, 113 Board of Trade Building, Montreal, on Saturday morning, May 22. Owing to the proximity of the holiday and for various other reasons the attendance was not quite as large as might otherwise have been expected, but all necessary business was transacted. The following report, read by the Secretary, outlined the programme of the Division since its organization:

"Boasting an existence of little more than six months, at this early age the Quebec Division of the Manufacturers' Association has proven its worth and justified its existence.

"On Thursday, October 16, the Quebec Division was brought into existence at a provincial convention of the members held in the Windsor Hotel. Its birth was an auspicious one, and round its cradle gathered the wise men of manufacture of the Province of Quebec, and they have assisted it in order to assist themselves during the past six months.

"At this convention C. H. Duggan was appointed the first chairman and C. Howard Smith, its vice-chairman, with a strong executive to back them up. During that six months the division has not had an opportunity to do any spectacular work, but has proved its honest worth. This was demonstrated in no mistakable manner when in January last there came a call from the provincial department of labor that the division appoint a representative to represent the employers of labor of the Province of Quebec to take part in the discussions of a Dominion-wide conference to be held at Ottawa for the purpose of finding ways and means to unify existing provincial labor laws. There was a good attendance at the executive meeting on this occasion, and Mr. John Lowe, of Valleyfield, was appointed to the post and accepted to undertake the work for the division.

"That meeting has already taken place, but I understand the work is not yet completed. The results of the first sessions, however, indicated the need for such a conference, and the division was ably represented by Mr. Lowe, who has already presented a report which he read at the annual meeting of the Montreal Branch held on Wednesday, May 12th.

Quebec City Members

"At the special meeting of the executive when Mr. Lowe was appointed, it was also decided to inaugurate a membership campaign in the City of Quebec. This was done when a luncheon was held in the Chateau Frontenac on Thursday, March 4th, followed by a canvas made largely by the manufacturers, then members of the Association in that city. I am pleased to report, gentlemen, that 30 new members were added to our rolls in the City of Quebec by that effort.

"Good work was done by the division, the effectiveness of which has already been seen, in an effort to prevent the re-enactment of the business Profits War Tax Act, the changes in which were outlined by Sir Henry Drayton in his budget speech a few days ago.

"In this connection the division has done very good work in the past few days in the securing of interpretations of many features of the new budget, and assisting members throughout the province in this way.

"In affairs such as this the division has been found to be invaluable in maintaining contact and unanimity of purpose among the members scattered all over the province. It is difficult to secure good attendance at the meetings owing to the distance the members have to travel, and the fact that they have been very busy with their own personal affairs during the past six months.

"A meeting of the division was held in Quebec, following the luncheon in the Chateau Frontenac at which J. E. Walsh, general manager of the Association, and J. R. K. Bristol, manager of the tariff department, were present. At that

meeting they suggested that in order to equally divide the meetings so that all might get an opportunity to attend some at least with facility, that three meetings per year should be held in Montreal, three in the City of Quebec, and one each in Sherbrooke and Three Rivers.

"I might state here that preparations are now under way for the organization of a branch in the City of Three Rivers, and Mr. Robert Ryan, of that place, has been never-ceasing in his efforts to maintain interest in that centre, and will carry the banner in the effort to organize a branch this fall.

"There is much of the intangible in the moral effect which the creation of the division has had upon the work of the Association, a benefit which cannot be set down upon paper, but which as time goes on will make itself felt more and more in a sort of sub-conscious manner, which cannot be misconstrued, and which will be so clear that he who runs may read."

Industrial Development Committee

One of the important steps taken by the meeting was the appointment of an Industrial Development Committee, the purpose of which was to endeavor to attract new industries to the province. The committee is composed of Robert Ryan, Three Rivers; J. H. Fortier, Paul E. Sise, J. A. Richard, Leslie Drake, Joseph Picard, George D. MacKinnon, C. J. Laframboise, Jean Rolland, W. H. Miner, W. I. Matheson, and J. F. Alain. The Montreal branch has also formed a local committee to assist in this work.

Election of Officers

The following officers have been elected by the Division for the ensuing year:

CHAIRMAN.

C. Howard Smith, Howard Smith Paper Mills, Limited, Montreal.

VICE-CHAIRMAN.

J. H. Fortier, P. T. Legare, Limited, Quebec.

EXECUTIVE COMMITTEE.

Paul E. Sise, Northern Electric Co., Limited, Montreal.
J. A. Richard, Fashion Craft Mfrs., Limited, Montreal.
W. B. Ramsay, A. Ramsay & Son, Montreal.
Lt.-Col. W. J. Sadler, Sadler & Haworth, Montreal.
W. S. Fallis, Sherwin-Williams Co., Montreal.
Raoul Grothe, L. O. Grothe, Limited, Montreal.
R. H. McMaster, Steel Co. of Canada, Limited, Montreal.
B. W. Coghlin, B. J. Coghlin Co., Limited, Montreal.
J. D. Ouellette, Acme Glove Co., Limited, Montreal.
Leslie Drake, Canada Axe & Harvest Tool Co., Montreal.
William D'Oyley Hutchins, Phoenix Bridge & Iron Works, Montreal.
Albert Tetrault, Tetrault Shoe Mfg. Co., Ltd., Montreal.
Michael Hirsch, J. Hirsch & Sons, Limited, Montreal.
Joseph Picard, Rock City Tobacco Co., Quebec.
Joseph Samson, Joseph Samson, Limited, Quebec.
Eugene Julien, Eugene Julien & Cie., Quebec.
J. E. Warrington, The John Ritchie Co., Limited, Quebec.
G. A. Ginac, J. H. Ginac, Limited, Quebec.
Andrew Sangster, Canadian Ingersoll-Rand Co., Sherbrooke.
George D. MacKinnon Steel Co., Limited, Sherbrooke.
C. A. Reynolds, Belding Paul Corticelli Silk Co., St. Johns.
C. J. Laframboise, Casavant Freres, St. Hyacinthe.
Jean Rolland, The Rolland Paper Co., St. Jerome.
W. H. Miner, The Miner Rubber Co., Granby.
W. I. Matheson, Shawinigan Water & Power Co., Three Rivers.
J. F. Alain, Victoriaville Furniture Co., Victoriaville.
A. A. Paradis, The Victoria Hide & Skin Co., Victoriaville.



C. Howard Smith
Howard Smith Paper Mills, Limited, Montreal
Chairman, 1920-21, Quebec Division



J. H. Fortier
P. T. Legare, Limited, Quebec
Vice-Chairman, 1920-21, Quebec Division

Maritime Division Holds Annual at Moncton

By H. R. THOMPSON
Secretary, Maritime Division, C.M.A.

THE annual meeting of the Maritime Division, C.M.A., was held at Moncton on April 28, 1920, convening at ten o'clock a.m. and continuing throughout the day. In the unavoidable absence of the Chairman, Mr. Angus McLean, who was representing the New Brunswick employers at the recent Industrial Conference at Ottawa, the Vice-Chairman, Mr. L. W. Simms, presided.

Nominating and resolution committees were appointed by the Chair, in order to expedite the election of the officers and committees for the ensuing year, and the drafting and adoption of resolutions.

In the absence of the Chairman of the Transportation Committee, the Secretary reviewed the work of this Committee



R. H. McKay
McKay & Fraser, Limited, New Glasgow, N.S.
Chairman, 1920-21, Maritime Division

for the past year. He explained the necessity for an exhaustive study of all phases of transportation, in view of the fact that the Intercolonial Railway, now a part of the Canadian National Railway System, will probably be brought under the jurisdiction of the Board of Railway Commissioners at an early date. He pointed out that the question of the advances in freight rates, affecting the Maritime Provinces, resolves itself into two chief phases, the political and the purely business. It is anticipated that the three Maritime Governments will jointly review the conditions under which these provinces entered Confederation and that the political aspect of the transportation problem will be considered at the same time. The business aspect is now receiving the attention of the Association.

Legislation Committee

The following bills directly affecting the manufacturers have been presented to the Nova Scotia Legislature:

Amendments to the Workmen's Compensation Act.
Amendments to the Factories Act.
Minimum wages for women employed in Industry.

In the New Brunswick Legislature, enactments have been made as follows:

Providing for the development of Hydro-Electric Power.
Amending and consolidating the Factories Act.
Amending the Workmen's Compensation Act.
Taxation of Unlicensed Insurance.

A special circular, dealing with the above, will be prepared and mailed to the members at an early date.

Accident Prevention

The secretary reviewed the organization and work of the Nova Scotia Accident Prevention Association, for which he has been acting as secretary. Following his remarks a motion was passed, that a committee be appointed in an endeavor to promote an organization to carry on a similar work in New Brunswick. The nominating committee was therefore requested to suggest the appointees.

Election of Officers and Committees

The report of the nominating committee, recommending the appointment of the following officers and committees, was adopted unanimously:

CHAIRMAN.

R. H. McKay, McKay & Fraser, New Glasgow, N.S.

VICE-CHAIRMEN.

L. W. Simms, T. S. Simms & Co., St. John, N.B.
A. G. Robb, Robb Engineering Works, Amherst, N.S.
J. A. Marven, J. A. Marven, Ltd., Moncton, N.B.

EXECUTIVE COMMITTEE

S. E. Elkin, Maritime Mail Co., St. John, N.B.
G. C. McAvity, T. McAvity & Sons, St. John, N.B.
C. D. Dennis, Rhodes, Curry, Limited, Amherst, N.S.
A. D. Ganong, Ganong Brothers, St. Stephen, N.B.
E. E. Shaw, Shaw & Mason, Sydney, N.S.
J. L. McDonald, Atlantic Underwear, Ltd., Moncton, N.B.
H. S. Crowell, New Burrell Johnson Iron Co., Yarmouth, N.S.
A. R. McPherson, Windsor Fdy. & Machine Co., Windsor, N.S.
Geo. W. Hallier, Brandram Henderson, Ltd., Halifax, N.S.
J. T. Cumming, J W. Cumming & Sons, Ltd., New Glasgow, N.S.
Chas. V. Monaghan, Moirs, Limited, Halifax, N.S.
W. D. Piercey, Piercey Supply Co., Ltd., Halifax, N.S.
J. A. Reid, Hartt Boot & Shoe Co., Fredericton, N.B.
C. S. Sutherland, Amherst Boot & Shoe Co., Amherst, N.S.
W. T. Ritcey, Acadia Gas Engine Co., Ltd., Bridgewater, N.S.
Archd. McColl, Nova Scotia Steel & Coal Co., New Glasgow, N.S.
Bruce Stewart, Bruce Stewart Co., Ltd., Charlottetown, P.E.I.

EX-OFFICIO.

W. S. Fisher, Emerson & Fisher, Ltd., St. John, N.B.
Angus McLean, Bathurst Lumber Co., Bathurst, N.B.
F. Magee, F. Magee, Limited, Port Elgin, N.B.
Alex. Wilson, Wilson Box Co., Ltd., St. John, N.B.

Representatives on Executive Council: W. S. Fisher, as Vice-President of C.M.A.; F. Magee, as Chairman Fish Section; Alex. Wilson, as Chairman Box Section; R. H. McKay, as Chairman Maritime Division; J. D. Palmer Fredericton, N.B.; L. W. Simms, St. John, N.B.; C. S. Sutherland, Amherst, N.S.; A. D. Ganong, St. Stephen, N.B.; F. A. Shand, Windsor, N.S.; R. B. Stewart, New Glasgow, N.S.

COMMITTEES.

New Brunswick Legislation: J. A. Reid, Angus McLean, Alex. Wilson.

Nova Scotia Legislation: R. H. McKay, A. H. Whitman, A. G. Robb.

Committee to Promote on Accident Prevention Association in New Brunswick: Angus McLean, L. W. Simms, G. C. McAvity.

Transportation Committee: Angus McLean, H. R. Silver, A. H. Whitman, A. McColl, W. S. Fisher, J. D. Palmer, J. A. Marven.

Power Development Committee: Angus McLean, J. A. Reid, A. A. Colter, W. D. Piercey, H. L. Fenerty, G. V. Monaghan.

Federal Tax Unlicensed Insurance

The Chairman brought up the question of the proposed federal tax on unlicensed insurance and emphasized the necessity for preventing any restriction being placed on the competition which now exists between the licensed and unlicensed insurance companies, pointing out particularly the benefit of being able to place insurance with the New England Factory Mutuals. After full discussion the resolution committee was requested to draft a resolution dealing with this matter.

British Preferential Tariffs.

The secretary informed the members that several boards of trade had passed resolutions favoring the restricting of the preferential tariffs to goods entering Canada through Canadian seaports only. During a discussion which ensued, it was pointed out that such action might adversely affect the importers who were not able to bring in full cargoes and therefore sometimes find it necessary to have their shipments placed in vessels consigned to New York or other United States ports. It was the general opinion that this question should be given exhaustive consideration before any recommendations should be made. The Resolution Committee was requested to suggest a resolution in this regard.

Government Employment Bureaux

It is understood that the Dominion Employment Bureaux are to be discontinued if the individual provinces are not willing to pay half of the maintenance costs. It is generally conceded that there should be some permanent and co-ordinated source for obtaining information as to the supply of and the demand for labor in the various sections of the provinces, with a view to evening up the shortage in one district with the surplus of another, etc. This matter received the consideration of the meeting and the Resolution Committee was requested to draft a resolution requesting the three local governments to give the financial assistance necessary for the continuance of these employment bureaux.

Representation on Power Commissions

A motion was passed that this division endorse the appointment of R. H. McKay as a member of the Nova Scotia Power Commission, representing the manufacturing industry.

A motion was passed that the New Brunswick Government be requested to consider giving the manufacturers direct representation on the New Brunswick Water Power Commission, which is to be appointed in the near future, as a result of an Act passed, at the late session, respecting the development of hydro-electric power in that province.

Proposed Legislation

Motions were passed requesting the New Brunswick and Nova Scotia Legislation Committees to consider the desirability of, and if found advisable, to take action towards arranging for some special party to keep in constant touch with what is transpiring when the local legislatures are in session, in an endeavor to ascertain beforehand what legislation is to be introduced, which will in any way affect the manufacturing industry. This action seems necessary, as it is anticipated that more legislation of a contentious nature will be considered hereafter than probably has been the case in the past. It usually happens that the three local legislatures are in session at the same time, and it is therefore impossible for the secretary to adequately take care of this feature.

Advancing Freight Rates

A motion was passed requesting the Transportation Department at Toronto to carefully consider the need for increased revenue for the railways, before agreeing to the principle of a general advance in freight rates. In any case the straight percentage increases to be most strenuously opposed.

Foundry Pig Iron

The secretary reported that an attempt had been made to get the steel companies in Nova Scotia to make a suitable grade of foundry pig iron, particularly for the use of the foundries in the Maritime Provinces, which are now competing for the western markets, under serious handicaps with the foundries of other provinces. The steel companies, however, have stated that they are not in a position to take this action at present. It is generally considered that the matter should be pursued, and it was therefore referred to the Executive Committee for further attention.



L. W. Simms
T. S. Simms & Co., Limited, St. John
Vice-Chairman, Maritime Division

Invitation from Fredericton

The Fredericton members of the Association extended a cordial invitation to the division to hold its next general meeting in Fredericton. A convention will probably be held during the fall months, and the Executive Committee will consider this thoughtful invitation when making preparations for this meeting.

Resolutions

The following resolutions were presented by the Resolution Committee and were adopted unanimously:

Shipments Through Canadian Ports

Whereas, the British preferential tariffs now apply on all shipments brought through the United States, as well as Canadian ports, and

Whereas, if such tariffs only applied on shipments through Canadian ports, it would mean

(*a*) The intensifying of a more thorough Canadian National Policy.

(*b*) The encouragement of steamship lines plying between Canada and Great Britain and other countries entitled to the preference.

(*c*) The removal from the minds of British exporters any apprehension they may have regarding the availability of Atlantic ports during the winter season.

(*d*) A greater volume of west bound traffic through Atlantic ports and via Canadian National Railways, through the Maritime Provinces.

Therefore be it resolved, that the Maritime Division, Canadian Manufacturers' Association, in meeting assembled at Moncton, April 28th, urge the Tariff Committee of the Association to consider, in all its phases, and from a national standpoint, the question of restricting the British preferences to goods entering Canada through Canadian seaports only, first establishing by close investigation that such restrictions will not adversely affect individual importers.

Further resolved, that if it is found, that sufficient reasons cannot be advanced to warrant the maintenance of the present policy, that representations be made to the Federal authorities to have the restrictions put in force without unnecessary delay.

Taxation of Insurance Companies

Whereas, we understand the Federal Government now has under consideration a proposal to tax unlicensed insurance companies, and

Whereas, it is vitally important to distinguish between ordinary unlicensed companies and New England Mutuals who insure factory sprinklered risks exclusively, and

Whereas, these companies have been of immense benefit to manufacturing interests of Canada through their educational efforts along lines of fire prevention,

Resolved, that the Maritime Division of Canadian Manufacturers' Association in meeting April 28th, 1920, strongly urge upon the Federal Government to avoid any legislation to discourage their business and influence in Canada, and which would remove or restrict the competition afforded by these companies,

Further resolved, that the sense of this resolution be at once transmitted by wire to the Minister of Finance, Ottawa.

Employment Bureaux

Whereas, the Federal Employment Bureaux formerly maintained in the Maritime Provinces, have been closed until such time as the Provincial Governments agree to bear half the cost of their maintenance, and

Whereas, these agencies have proven of great advantage to both employers and workmen and have acted as a clearing house to equalize shortage and surplus of labor, and

Whereas, we understand that all other Provincial Governments have agreed to bear their portion of the expense and to continue these offices;

Therefore be it resolved, that the Maritime Division of this Association assembled in annual meeting at Moncton, April 28th, 1920, respectfully urge upon the respective governments of the Maritime Provinces, that they take steps to reopen and maintain these offices, and that they bear their share of the cost of maintenance.

Further resolved, that copies of this resolution be submitted to the several Provincial Premiers.

Maritime Province Co-operation

Whereas, we understand that it is the intention of the three Maritime Provinces to jointly consider and take action on the question of increased subsidies due these provinces in lieu of land grants to other provinces;

Therefore be it resolved, that the Maritime Division Canadian Manufacturers' Association, in meeting assembled at Moncton, April 28th, express its pleasure at the proposed co-operative action on a matter of extreme importance, and urge that all conditions leading up to and under which these provinces entered Confederation, be reviewed, and that the question of Transportation be given immediate and particular consideration.

Further resolved, that copies of this resolution be forwarded to the Premiers of the three Provinces.

Development of Power

Whereas, in previous resolutions adopted by the Maritime Branch, Canadian Manufacturers Association, the desirability of developing the water powers of the Maritime Provinces was brought to the attention of the Provincial Governments, and

Whereas, it is of the greatest advantage to develop every possible economic source of power, in order that our manufacturing industries can use these resources and be placed in as good a position, respecting needed energy, as the manufacturers of other provinces;

Therefore be it resolved, that at this meeting of the Maritime Division, Canadian Manufacturers' Association, assembled at Moncton this 28th day of April, 1920, that we express our pleasure at the action so far taken by the Nova Scotia and New Brunswick Governments towards the early development of Hydro-Electric Power.

Further resolved, that we urge the Governments to continued action and also to extend to every bona-fide company which is prepared to proceed to develop these resources, every possible encouragement and assistance, and we further recommend that such water power resources as are now held by individuals or corporations for speculative purposes, should be secured by the provinces and so handled that they may be used for the best welfare of the people.

Pacific Division Reviews Year's Work

By HUGH DALTON
Secretary, Pacific Division

THE annual meeting of the Pacific Division, C.M.A., took place in the Board of Trade Rooms, Vancouver, on April 15, with a good attendance of members of the division present. After the reading of the minutes of the previous annual meeting, the secretary presented his report. This read in part as follows:

"During the past year the Executive Committee of this division held twelve meetings; the Legislation Committee held four meetings, the Membership Committee five meetings, and the Transportation Committee one meeting; in addition to which a number of meetings have been held by different groups of manufacturers interested in particular phases of legislation, etc.

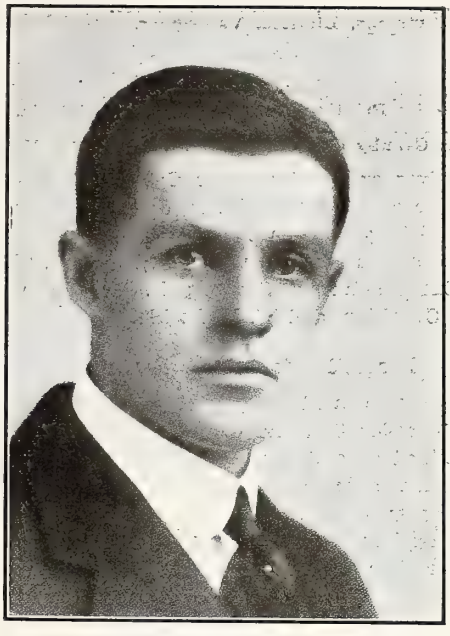
"Following out the policy of the Association of encouraging in every way possible the organization of trade sections for the advancement of the interests of manufacturers in one line of industry, and particularly for the building up of export trade, a section composed of the box manufacturers of this province was organized last November. This section comprises seventeen firms in that line of business in different parts of the province, and since its inception fourteen meetings have taken place in the Vancouver offices.

"The membership of the division has continued its steady growth; the membership to-day comprising one hundred and sixty-two (162) manufacturers representing practically every class of industry in the province. A particularly pleasing feature in this connection, and one which has largely contributed to the growth of the Association during the past year, is the enthusiasm of the members familiar with the work of the Association in bringing in new members. The secretary gratefully acknowledges the whole-hearted assistance given him by many members along this line during the past year.

"The Victoria and Vancouver Island Branch of this division, which was organized just prior to our last annual meeting, has also shown a most satisfactory growth. The



James B. Thomson
James Thomson & Sons, Limited, Vancouver
Chairman 1920-21, British Columbia Division



Norman Yarrow
Yarrow's Limited, Victoria, B.C.
Vice-Chairman, 1920-21, British Columbia Division

membership on Vancouver Island to-day comprises thirty-two (32) firms, and the executive of that branch has set an objective of sixty members for the next annual meeting.

"Mr. Norman Yarrow was elected Chairman at the annual meeting of the Victoria and Vancouver Island Branch, held on the 13th instant, with Mr. R. W. Mayhew of the Sidney Rubber Roofing Company as Vice-Chairman, and an executive composed of Messrs. Tomlin, Tate and Graham.

"The Vancouver and Victoria offices of the Association have had numerous visitors from all parts of the world during the past year, and a considerable part of the time of the secretaries of these offices has been placed at the disposal of such visitors, in placing them in touch with local manufacturers, and in furnishing them with information as to goods manufactured elsewhere in Canada, as well as markets in Canada for various raw materials.

"The Vancouver office of the Association was also used for some six weeks in the latter part of 1919 as headquarters for Canadian trade commissioners from Great Britain, South Africa, Australia and New Zealand, and everything possible was done to assist the work of the trade commissioners in meeting manufacturers, importers and exporters, with a view to facilitating Canada's trade abroad. The trade commissioners and the Department of Trade and Commerce have expressed themselves as highly gratified at the services rendered them by the Association during their visit to British Columbia.

"It is gratifying to be able to report that an ever-increasing number of members of this division are availing themselves of the expert assistance of the head office staff of the Association in regard to tariff, transportation, legislation and other matters affecting their individual interests.

"During the past year the Vancouver office of the Association has co-operated in every way possible with the British Columbia offices of the Department of Soldiers' Civil Re-establishment in the work of placing returned men in employment. The co-operation offered by this Association was referred to in highly appreciative terms in the annual report to headquarters at Ottawa by the local S.C.R. offices."

Chairman's Remarks

The Chairman of the Division, Mr. McNeill, explained that, having only just returned from the east, he had not had time to prepare the customary written report reviewing the year's activities. He referred, however, to the gratifying increase in the membership of the division, which from about fifty-two years ago had grown to 162. He expressed the belief that succeeding years would show as great, if not greater, increases. Mr. McNeill then expressed gratification at the fact that the annual general meeting of the Association was to be held on the coast. While there were points of difference between the east and west that were irreconcilable, there were points of contact of far more consequence, and he was glad that many prominent men were coming from the east in order that by personal touch they might smooth away any difficulties that existed.

Election of Officers

The election of officers for 1920-21 was next proceeded with, resulting in the following choice of chairman, vice-chairman and executive:

CHAIRMAN.

J. B. Thomson, Jas. Thomson & Sons, Limited, Vancouver.

VICE-CHAIRMAN.

Norman Yarrow, Yarrows, Limited, Victoria.

EXECUTIVE COMMITTEE

H. J. Bigger, American Can Co., Vancouver.
F. E. Burke, Wallace Fisheries, Limited, Vancouver.
J. J. Coughlan, J. Coughlan & Sons, Vancouver.
E. W. Hamber, B.C. Mills Timber & Trading Co., Vancouver.
J. W. F. Johnson, B.C. Sugar Refining Co., Limited, Vancouver.
W. H. Leckie, J. Leckie Co., Limited, Vancouver.
H. MacLaren, Simmons, Limited, Vancouver.
J. H. McDonald, B.C. Manufacturing Co., Ltd., New Westminster.
Frank Parsons, Gregory Tire & Rubber Co., Vancouver.
R. B. Sharpe, Pacific Box Co., Limited, Vancouver.
W. C. Shelly, Shelly Bros., Limited, Vancouver.
J. L. Tait, Colonist Printing & Publishing Co., Victoria.
Edwin Tomlin, B.C. Cement Co., Limited, Victoria.
G. W. Wooster, Granby Consolidated M., S. & P. Co., Vancouver.

Representatives on the Executive Council of the General Association were selected as follows: J. B. Thomson, Chairman of the Division; Norman Yarrow, Chairman of the Victoria and Vancouver Island Branch; R. B. Sharpe, Chairman of the Box Manufacturers' Section; F. E. Burke, E. W. Hamber, J. J. Coughlan, and W. H. Leckie.

Resolution to Change Name

A resolution was next submitted to the meeting and carried that, in order that the identity of British Columbia should be retained as a distinctive unit in the organization of the Association, a request should be made to the annual general meeting to have the by-laws changed so that the division shall be known in future as the British Columbia Division, rather than the Pacific Division.

Some time was then spent in discussing arrangements for the annual general meeting and, after votes of thanks to the retiring chairman and secretary, the meeting adjourned.

Standing Committees

At a meeting of the new Executive Committee on April 29, the following standing committees were appointed:

TRANSPORTATION.

H. J. Bigger (Chairman), American Can Co., Vancouver.
J. H. McDonald, B.C. Manufacturing Co., New Westminster.
A. E. McMaster, Whalen Pulp & Paper Mills, Vancouver.
J. E. Hall, Vancouver Milling & Grain Co., Vancouver.
Albert Erb, Davies Paper Box Co., Vancouver.
W. R. W. McIntosh, Kelly, Douglas Co., Vancouver.

TARIFF.

H. MacLaren (Chairman), Simmons, Limited, Vancouver.
O. W. Pearson, Swift Canadian Co., Limited, Vancouver.
E. C. Knight, Vancouver Lumber Co., Vancouver.
T. B. Dixon, Gault Bros., Limited, Vancouver.
L. G. De Merrall, Martin-Senour Co., Victoria.
F. A. Quigley, Vancouver Knitting Co., Limited, Vancouver.

LEGISLATION.

J. B. Thomson (Chairman), Jas. Thomson & Sons, Vancouver.
Wm. McNeill, Western Power Co. of Canada, Ltd., Vancouver.
J. G. Todhunter, Clarke & Stuart, Co., Ltd., Vancouver.
Frank Parsons, Gregory Tire & Rubber Co., Ltd., Vancouver.
W. H. Malkin, The W. H. Malkin Co., Ltd., Vancouver.
E. W. Hamber, B.C. Mills Timber & Trading Co., Vancouver.
W. H. Leckie, J. Leckie & Co., Ltd., Vancouver.

Annual Meeting of the Montreal Branch

By R. W. GOULD

Secretary, Montreal Branch, C.M.A.

ONE of the best-attended and most successful annual meetings of the Montreal Branch, ever held, took place on the afternoon and evening of May 12. The business session took place in the afternoon, following which the annual dinner, attended by 150 members, rounded out the day's proceedings. At the afternoon meeting, which was presided over by the retiring chairman of the branch, Mr. W. J. Sadler, the various reports were presented.

The secretary's report gave a resumé of the year's business of the branch. In part it reads as follows:

The Secretary's Report.

"The problems of your Executive Committee during the past year have been in almost every case those arising out of the reconstruction of business on a peace basis following the war. It took years to win the war, and while no spirit of pessimism is entertained, it will take another year at least in the opinion of many, for that reconstruction programme to be completed and peace conditions finally astride the saddle of commerce and industrial activity. There has been a great industrial development in the City of Montreal amongst our members. Factories have been extended, capital increased and new markets developed. All this brought about greater activity in the Association and made the work of your executive committee more voluminous.

"Many emisaries of industry from all parts of the Empire and from far countries have visited Canada during the past year, and in almost every instance they solicited the assistance and advice of the Montreal Branch officials, for Montreal is never overlooked in a business itinerary of Canada. Your executive was pleased to give assistance and confer with representatives from the United Kingdom, from France, China, Japan, the United States, and Australia. Men from almost every corner of the civilized globe have as a matter of fact been assisted and have returned to their respective countries with very kindly feelings indeed toward the Canadian manufacturer and his association in this country.

"During the year the most fruitful source of labor extraordinary to your executive was perhaps the various forms of legislation introduced in the Federal House and the activities of the Board of Commerce. In the case of the latter your executive members and those interested in various specific forms of legislative and near legislative provisions did their best to assist the Government in all cases where constructive work was attempted. In some cases it was found that there was not a common understanding between the aims of the manufacturers and the Board of Commerce, and delegations who, appearing before the board acted as an interpreting medium and in almost every instance the way was smoothed. It is pretty nearly accepted now that the Board of Commerce in the final analysis in each case realized that your executive and assisting members were not out to oppose Government measures or any other effort that might be made to stabilize the country during the reconstruction period, but rather were anxious and eager to assist and give the Board of Commerce and similar bodies the benefit of their experience, wisdom and advice in any effort that was made to this end. The work in this connection is dealt with in greater detail in the report of the Legislation Committee.

Formation of Quebec Division.

"So far as our internal economy is concerned by far the most outstanding and important step that was taken during the past year was the formation of a Quebec Division, which provides for machinery by which matters of purely provincial interest may be handled with despatch and satisfaction. The Montreal Branch took a very lively interest in this work, and various members from Quebec, Sherbrooke and Three Rivers, as well as other points, assisted in a splendid manner. In November of last year the Division was formed with G. H.

Duggan as chairman and C. Howard Smith as vice-chairman, backed by a strong executive representing the various industrial centres of the Province of Quebec. Good work has been accomplished by reason of the additional facilities given the members through a provincial division, and each succeeding year promises to bring it into a greater sphere of activity and usefulness until the Province of Quebec has the largest and most active division in the whole Dominion.

Relations With Labor.

"Your executive labored incessantly during the year in order to bring about a better understanding between labor in the City of Montreal and employers, largely represented in the Association. In this effort the executive was aided by the labor leaders of the city who realized that a common ground for the discussion of all trouble and grievances whether real or imagined was of prime importance to industrial peace in Montreal. In this effort your executive was signally successful. It is a significant fact that when the civic employees of the waterworks department went out on strike in January last, the labor leaders and the heads of that particular union came to your executive with a request that they be allowed to place their case before the branch with the request that the executive assist as a mediator in the settlement of the trouble. Although in the final settlement the Association did not appear in the arbitration proceedings, and while it may not be generally known it is nevertheless a fact that your executive was actually instrumental in bringing about a settlement of a strike which was dangerous to the best interests of the city and which during its continuance brought much suffering and hardship to bear upon the citizens in all walks of life.

"During the past few months Mr. John Lowe was on invitation of the Federal Government appointed by your executive as the representative of the employers in the Province of Quebec at a conference which has already been held, on the Unification of Provincial Labor Laws. In this matter and in other questions akin to this Mr. Lowe has given the Association splendid service at a great personal sacrifice during the past year, and has become what might be justly termed our plenipotentiary extraordinary in these matters.

Meetings of Executive Committee.

"Eight meetings of the Executive Committee were held during the year with an average attendance of fifteen. During the past three months our members have been unusually busy with their personal business interests, and it has been very dicult for them to get away from their business to attend Association meetings, of which there have been many of a special character."

Reception and Membership Committee

The report of the Reception and Membership Committee was presented by its chairman, Mr. F. W. Stuart. It read as follows:

"One year ago when this committee presented its report at the annual meeting it was announced that there had been a net gain in the membership of the branch during the year of thirty-four members. 'This,' to quote the report, 'is by far the largest percentage of increase which the branch has enjoyed for a number of years, and is in itself a marked recognition of the Association's endeavors during the past twelve months on behalf of its members.' This year I am pleased to report a net gain membership for the year of 173. In addition to this total we have secured seven new members during the present month, not included in the above calculation, which rounds our year out with a net gain of 180 new members.

"The record of applications and resignations during the past year by months is as follows:

	Applications.	Resignations.
May	5	0
June	4	2
July	3	0
September	17	2
October	4	2
November	1	2
December	10	2
January	120	4
February	13	1
March	2	2
April	12	0

"This gives us a total new membership for the year of 190 and a total of 17 resignations. The total number of members in the branch at the end of last year was 621, while the total number of members at the present time in the branch is 794, a net gain of 173, not taking into account the seven new members during the present month which officially will be added to the count of the new year.

"It will be noted that January is credited with 120 new members. This was the result of the membership campaign which was carried on during the month of December concurrently in every Division in the Association. The Montreal Branch gave the Ontario Division a close run for premier position in this campaign, and was beaten out by a very small margin. The impetus of the December campaign has not died out as yet, and it will be noted that February brought thirteen new members and April twelve more.

Reasons for Resignations.

"At this juncture permit me to point out that in the case of the seventeen resignations in almost every case they were brought about owing to the discontinuance of business by firms holding these memberships or by amalgamations of groups whose activities were along kindred lines. The increase therefore in membership during the past year is considerably in excess of the total membership increase of the branch in the past six years.

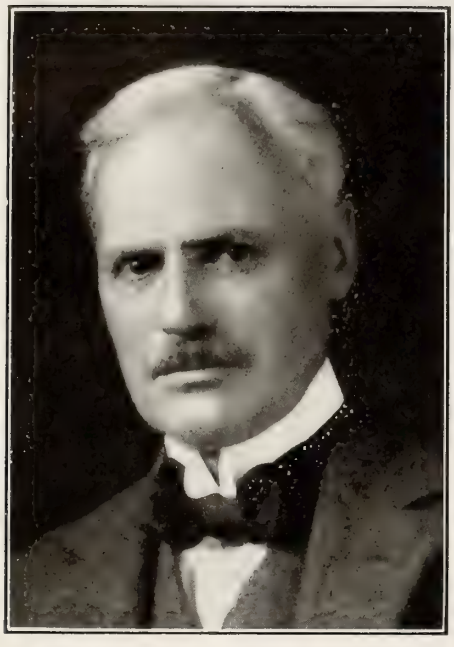
"Although the Montreal Branch has not yet secured a 100 per cent. membership of all eligible manufacturers within its jurisdiction it is estimated that there is not more than six per cent. of our eligible manufacturers outside the pale of the Association, and it is hoped that during the coming twelve months these will be gathered into the fold. During the campaign, in most cases, no great difficulty was experienced in convincing the prospects visited to take membership in the Association. This your committee took as a strong indication that the work of the Association has become very well and favorably known even among the few manufacturers who have not yet joined the organization.

"In passing I wish to pay a tribute to those who made a personal sacrifice of their business interests to assist in the membership campaign, which without their thorough co-operation and effort would not have been the success it was. The team captains and team members worked arduously and long on the campaign, and I would like to thank especially Messrs. S. W. Ewing, F. R. Whittal, A. H. Brittain, James L. Waldie, Paul F. Sise and H. L. Perchard for the splendid work which they accomplished in this effort.

"During the year six dinners and luncheon meetings were held, the first being the occasion of the organization of

the Quebec Division on October 16th, at which there was a good attendance. There then followed the meeting on January 8th, when Roger W. Babson addressed a joint luncheon of the Kiwanis Club, the Montreal Publicity Association and the Canadian Manufacturers' Association. There was an attendance of considerably over 600, and the meeting was a splendid success. The quarterly dinner was held on February 4th, at which Hon. Robert Rogers was the speaker. This was attended by 120. A luncheon was held in the City of Quebec on March 4th in connection with a drive for members in that city. Hon. L. A. Taschereau, Attorney-General and acting Prime Minister of the Province, was the chief speaker. There were 74 present, and some 30 new members were secured through the effort.

"The Dominion Council meeting of March 25th was held in Montreal, there being an attendance of seventy-eight at the noon luncheon. The speaker on this occasion was J. A. Woodward, one of the labor leaders of the city. The latest luncheon meeting was that arranged for the officials of the Alberta Industrial Development Association, which was held on April 27th, at which there was an attendance of seventy-three.



F. W. Stewart
Cluett, Peabody & Co., of Canada, Limited
Chairman, 1920-21, Montreal Branch

"There is still much work to be done in Montreal in the matter of increasing the membership, and it is hoped that at the next annual meeting the committee will be able to report 100 per cent. membership in this city."

Legislation Committee

The following report was presented by the Legislation Committee, of which Mr. B. W. Coglin is chairman:

"The work of the Legislation Committee during the past year has been considerable in volume. Much of the special details of the work however fell upon the shoulders of those members whose manufacturing interests were peculiarly affected by legislation which was introduced both before the House at Ottawa and in the Provincial Parliament at Quebec.

"Overshadowing all the legislation which contained objectionable clauses which were brought down in these Houses were the restrictions and demands made upon the manufacturing community by the Board of Commerce. During the year history-making and celebrated arguments were carried on between this Board and various sections of the manufacturing interests.

"The most important of those was perhaps that between the Board of Commerce and the textile manufacturers. This arose out of the issuance of a questionnaire which contained many objectionable clauses and caused the textile industry no little concern all over Canada. The Montreal textile people were particularly active in this matter, and were later joined in their efforts by kindred manufacturing interests in the textile trade. The results of the effort on the whole were satisfactory, but their final culmination is yet to be seen.

"The latest work of the committee was that in connection with Bill No. 27, the Food and Drugs Bill, introduced in the House by Hon. N. W. Rowell. The results attained by the Montreal manufacturers affected by this bill doubtless crowned all previous efforts during the year, at Ottawa, of this character. They in co-operation with the Ontario manufacturers of similar lines put up a splendid and winning fight which removed many of the objectionable clauses from the bill entirely, and deleted portions of other clauses not conducive to the welfare of manufacturers of lines affected.

"The effort to prevent the re-enactment of the Business Profits War Tax Act was something upon which considerable time was spent by your committee. Representations were made to various members of the cabinet as well as members of parliament, and a memorandum was presented to the Government officially. Copies of these memorandums were sent out to various boards of trades and similar organizations throughout the province who concurred in our actions and also made representations to the Government in their own behalf.

Business Profits War Tax.

"Recently information has been received from Ottawa that the Government intended to re-enact this Act and a second effort was made, the members representing Montreal being appealed to by members of the Association, asking them to give the matter their immediate attention. The outlook, however, at the present time is that there will be a re-enactment of the Act, the Government pleading that no other vehicle of a more acceptable character can be devised to take the place of the Business Profits War Tax Act in the raising of revenue.

"Your committee has given some assistance to the Premium Payers Committee, recently organized under the auspices of the Association, to fight the proposal of the Government to place a tax of 15% upon unlicensed insurance companies, which will, if passed, include the mutuals and reciprocals in which many of our members are interested. A delegation proceeded to Ottawa on May 1st and interviewed Sir Henry Drayton, Minister of Finance, and Hon. C. C. Ballantyne, Minister of Marine and Fisheries, on this subject. The outcome of this interview has not yet been made known, and not until the budget is brought down will we learn whether or not our representations were successful.

"The Association through its committee took a great interest in several measures going through the Provincial Parliament, chief among which was the bill introduced by Hon. L. A. David, Provincial Secretary, for the creation of a commission to draft a new civic charter for the City of Montreal. The Association demanded of the Government that it be given a representative on this commission. This the Government, however, refused to do but assured the Association to a certain degree of its satisfaction that the interests of the manufacturers of Montreal would be safeguarded zealously in the drafting of the new proposed charter.

"The entire and complete co-operation of the legal department at head office, under Mr. H. Macdonald, has during the

past year been a source of great satisfaction to not only the Legislation Committee but also the entire branch membership. Many legal enquiries were directed to the legal department, and they were attended to with a despatch and efficiency which could not but make for satisfaction in the service rendered.

"One or two more or less serious matters of difference between members of the Association over contracts, etc., in different parts of Canada were brought to the attention of the committee of the branch which co-operated with head office in any way possible tending towards their settlement, which was the final outcome of such disputes in every instance."

Chairman's Address

A feature of the proceedings was the annual address of the chairman, Mr. W. J. Sadler, which is reproduced in full:

"It is with not a little temerity that I approach the task of attempting to make even a superficial survey of the events that have called for the attention of the industrial communities of Canada during the past year. It is true that when one year ago we met for the annual meeting, we talked of the new era of peace and reconstruction that was upon us. We have experienced the task of reconstruction, which is not yet completed, but, of the era of peace, we have found that we shifted from a struggle of nations to a struggle of classes. We have cried 'Peace, peace' while at the same time we have been seeking for that peace which we were loudly declaiming to our fellows.

"So far as our experience of the past year has been concerned, in many things our lot has not been cast in pleasant places. I am pleased, however, to point out that so far as Canada has been concerned, while we have had our industrial disputes and our industrial troubles, we have not suffered to such an extent by these scourges as the European nations nor yet the nation to the south of us. In the maintenance of a sound and sane industrial peace in Canada, the Canadian Manufacturers' Association has played a not unimportant role, and in that effort the Montreal Branch has taken its share of the responsibility and effort and I think has shouldered that responsibility with some degree of success.

Catastrophe of the War.

"It was not until the past year that we came to realize to the fullest extent what a great catastrophe the world war really was. During the years of the struggle and following immediately upon its heels we felt more keenly the heart pangs in the loss of thousands of our young men. To-day we are feeling to the full extent, may I say, the industrial pangs of their loss. It is pleasing to note that during the past six months there appears to have been an easing off in the industrial unrest in Canada as compared with the corresponding period last year. When the thousands of soldiers of Canada came pouring back home, it was impossible for our industrial establishments to absorb them as rapidly as they returned. This caused unrest and dissatisfaction. The Industries have, however, to a large extent been able to overtake this problem and to-day nearly all of the returned soldiers are rehabilitated in civilian life, and their influence for good is beginning to be felt in every avenue of activity in Canada.

"During the past year our export trade in Canada has grown by leaps and bounds. We have stretched the tentacles of trade far out across oceans and continents and have made new business friends in every civilized country. The glory of gallantry given to the word 'Canada' by our sons on European battlefields has been reinforced by the quality of the Canadian manufactured product throughout the world. Indeed our export trade might be doubled, nay trebled, during the next year providing our manufacturers in this country were in a position to successfully fill the great demands made upon them by foreign markets. Our greatest difficulty at the present time is to secure the goods to satisfy the market. The demand far exceeds the supply and orders go begging up and down the country.

"The Canadian manufacturer with his accustomed foresight and keen business acumen is preparing as rapidly as he is able to take care of these demands for additional manufactured goods, and our manufacturing plants are expanding all over the country. The indications are to-day that within the next twelve months Canadian manufacturers will be in a position where they will be able to meet in a measure the great demands of the outside world for her products.



B. W. Coghlin
B. J. Coghlin Co., Limited
Vice-Chairman, 1920-21, Montreal Branch

"Closely allied with industrial unrest and the great demand for goods especially in Europe, we have passed through an unprecedented period in the last year in the matter of the cost of living. As wages have increased and the cost of raw materials have been forced upwards by the great demand, the cost of the necessities of life have risen until to-day we are carrying a cost of living budget never before equalled in our history. One of our old English assayists a half century ago in writing on 'The Pleasures of Wealth' remarks that full contentment should come to a man on £400 per year, and he points out that, with this income, one might own a comfortable estate, keep a butler, two maids, a gardener and a coachman and withal not fear the wolf at the door. To-day such an establishment on $2,000 per annum sounds like the tale of Alladin's Lamp. In view of this condition I am more and more of the opinion that the old war-time clarion call of 'Patriotism and Production' is what we need in Canada in these days of reconstruction even as much as we did in the days when we were at grips with the Central Powers of Europe.

"Among other disturbing elements to-day that calls loudly for our attention is the tangled situation with respect to the

exchange rate. Canada is suffering but a little from this condition, but it is possible, as some of our financiers have pointed out, that this indeed may be a blessing in disguise, that it is a strong stimulus toward the production of more goods in our own country, the purchase of our own goods more exclusively and in many other ways a general tonic for our national pride in achievement. The situation it seems will not become very much more acute, and it is hoped that in the not far distant future Canada will have reached that point in her production and export to the United States, where she will have corrected a most aggravating financial circumstance.

Problems of Tariff.

"The tariff problem is one which your Executive has been taking a deep interest in. The Association has now a large and very comprehensive scheme, whereby it may assist the Government materially in the carrying out of the idea of establishing a Tariff Commission similar to that in the United States. A scientific study of the tariff will be made, and the Association is arranging that when this is started we will be in possession of an array of facts and figures which will show plainly and truthfully, beyond the possibility of refutation, what tariff means to our national life, to our industries,, and what a broad programme of free trade, as a national policy, would bring in its train, in undermining the very groundwork of our prosperity as a country.

"Indications are—and I do not wish to pose as a prophet—that the next general election in Canada will see the tariff question one of the features of the campaign. There has grown up in our country west of the Great Lakes a section of the people bound to the doctrine of free trade. They undoubtedly will press their claims with all the strength they possess at the next occasion at the polls. The Canadian Manufacturers' Association must impress upon the people of Canada that it does not demand a protective tariff that will assist the manufacturers as a class, at the expense of the rest of the population, but it does desire a tariff which, in its application, will prove to be the greatest good for the greatest number. That a reasonable amount of protection is the system by which the greatest good to the greatest number may be obtained by a national policy for Canada, the Canadian Manufacturers' Association is prepared to prove by facts based on the actual conditions in this country and neighboring countries.

Liquidation of National Debt.

"This question suggests the problem of the liquidation of the great national debt, which to-day is causing no little concern in Canada. This great debt, piled up by our participation in the war, is in many respects our sinking fund of sacrifice. It will not be for us, within our allotted span of four score years and ten to liquidate it, but it is for us to lay the foundations broad and deep of a programme which, when carried out by our children and children's children will sweep that debt out of existence as gloriously and successfully as did our gallant sons sweep the enemy from their path on the Western front during five years of war.

"Turning from questions of national import, I would like to dwell for a moment upon one or two of our domestic problems as a city. Montreal, for her size and importance as a manufacturing centre and the commercial metropolis of Canada, is, to my mind, woefully lacking in what I may be permitted to term a comprehensive advertising programme. I am firmly convinced that, if the city of Montreal would organize a publicity and information department, or better, perhaps, the province organize such a department, and it be operated scientifically and efficiently, many manufacturers from the United Kingdom and the United States would be attracted to the province of Quebec for the location of subsidiary plants. When we remember that during the past year upwards of twenty American concerns have, or are about to, establish subsidiary plants within this province, without having any particular invitation to locate here, we will realize the potentialities of our province in this respect. I would respectfully suggest that this matter be given consideration by the incoming Executive.

"As our city grows and expands our civic viewpoint must grow and expand, if we are to keep pace. In this connection I am of the opinion that the time has come when Montreal for the proper conduct of her business, needs a tube system for the handling of passenger traffic. I do not mean to imply by this that our radial system is inefficient, but there comes a time in all large cities when no radial system, no matter how efficiently conducted, is able to meet and cope with the growing problem of passenger traffic. This, too, is a matter which I believe, in the interest of our city, the incoming Executive should give a measure of attention.

The Million-Dollar Fund.

"Returning once more to the work of the Association before I close, permit me to refer briefly to the Emergency Fund which the Association is now attempting to raise among its members. One million dollars is the objective, and many of the problems which I have referred to previously in this report will, if they are tackled in earnest, require the expenditure of considerable sums of money. Our services must be broadened and increased if we are to give our members the assistance which we desire to give them. Our Tariff Department is greatly in need of extension, as are our other departments. Quebec has been allotted $300,000 as her quota of this total, and it is my earnest hope that we will be able to reach our objective before the end of the month and demonstrate to the Association that our Division and Branches in this Province are not lacking in initiative and enthusiasm. Mr. T. P. Howard, our Dominion President, will give you an address at our dinner which will follow this meeting and outline in detail the programme upon which this fund will be expended.

"Time does not permit me to touch on other important questions, of which there are many, and I have chosen almost at random those which I have referred to. I desire before I close to thank you all heartily for your attendance at this annual meeting, and for the splendid support which you gave me during the year which is gone in the work of the Association, when I had the honor to act as your chairman. I feel sure that our meeting together to-day, for a resume of our year's work, will not be without its beneficial results, and I am certain that the next year will prove the most fruitful, as each succeeding year should, in the history of our Branch and of the Association as a whole. I thank you."

Election of Officers

The following officers were elected for the ensuing year:—

CHAIRMAN.

F. W. Stewart, Cluett, Peabody & Co. of Canada, Limited.

VICE-CHAIRMAN.

B. W. Coghlin, B. J. Coghlin Co., Limited.

EXECUTIVE COMMITTEE.

A. H. Brittain, Maritime Fish Corporation, Limited.
E. C. Budge, Budge Carbon Paper Mfg. Co., Ltd.
F. G. Daniels, Dominion Textile Co., Ltd.
Joseph Daoust, Daoust, Lalonde & Co., Ltd.
A. S. Falle, Waltham Watch Co., Ltd.
I. Greenberg, Greenberg-Smith Company.

Art. Harries, the Canada Paper Box Co., Ltd.
Paul E. Joubert, Lamontagne, Ltd.
John Lowe, Montreal Cottons, Ltd.
W. H. Miner, Miner Rubber Co., Ltd.
J. A. Richard, Fashion-Craft Mfrs., Ltd.
Lieut. C. P. Slater, Geo. A. Slater, Ltd.
Julien C. Smith, Canada Carbide Co., Ltd.
Eug. Tarte, La Patrie Publishing Co., Ltd.
Jos. L. Waldie, Canadian Tube & Iron Co., Ltd.
F. R. Whittall, A. R. Whittall Can Ca., Ltd.

Annual Banquet

The annual dinner of the Branch was graced by the attendance of several prominent public men, among them being Colonel Grant Morden, Sir James McKechnie, K.B.E., Senator J. P. B. Casgrain, J. W. Norcross, W. F. Foster, B. W. Coghlin, Lieut.-Col. W. J. Sadler, E. B. Bristol, M.P., Hon. Frank Carrel, Major-General Sir Alexander Bertram and others. The new chairman of the Branch, Mr. F. W. Stewart, presided.

Mr. T. P. Howard, in his address, as president of the Dominion C.M.A., spoke along the lines of the necessity for a scientific tariff board for Canada, which could settle the question of tariff on actuarial bases.

"We approached the Government on this matter," said Mr. Howard, "and in this we were supported by the labor elements. The better classes of the labor unions to-day are not opposed to protection, and I am glad to say that they are as patriotic in their impulses for the betterment of Canadian industry as are the best in Great Britain. This matter, when it is taken up, will be considered with the support of 1,600 labor unions of Canada, as well as the manufacturers and employers."

Mr. Howard then dealt with the importance of the establishment of a Canadian Chamber of Commerce at London, and other work in the interests of both employers and employees, and said that for this a large amount of money would be required, for which the million dollar fund was being raised.

Sir James McKechnie, chairman of Vickers, Limited, who is on a visit to Canada, followed, and gave a short address, in which he dealt with the position of shipbuilding in Great Britain and Canada. He said he had been greatly struck with the manner in which the Canadian employees entered into their work, as compared with the manner of the workers in England. If the present manner went on, he said, the future of the steel shipbuilding industry in Canada was assured. Sir James spoke of the apprentice system in this country, and urged that in the shipbuilding work apprentices should be trained during the first years of their work, so that they would be really trained, and not made mere helpers to other skilled workmen.

"Train your boys so that they will be skilled workers," he said, "and make it compulsory that employers so train them, that in future the Dominion will have a crop of skilled workers growing out of the younger generation of apprentices. That will be the means of securing the future of the Canadian shipbuilding industry."

Col. Grant Morden

Col. Grant Morden, who was well received, spoke in part as follows:

In opening his remarks, Col. Grant Morden said he was a very old member of the Canadian Manufacturers' Association, though he had not had the opportunity of attending an annual banquet for nearly twenty years. He recalled that on the last occasion he had heard a speech by the late Sir Wilfrid Laurier, who followed the trail that was blazed by that great Empire-builder, the late Sir John A. Macdonald.

"You are not taking to heart that broad view of the future that these great pioneer Canadians did in the past," said Colonel Morden, "and yet there never was a time in the history of this country, facing a great war debt, when it was so necessary to look into the future to convert the undoubted resources of this great Dominion into dollars and cents, not only to enable you to pay off the war debt, but to put this great country in a foremost position among the nations that form the British Empire."

Col. Morden referred to the Federation of British Industries in England, representing some four thousand millions sterling invested in industry in the United Kingdom. He had been opposed to that organization being turned into a political force, and he said his reasons would apply equally to the Canadian Manufacturers' Association. "In the first place, I am entirely opposed to class government," he said. "It is absolutely against the great democratic system of government which has been the pattern of the United Kingdom and for liberty-loving people throughout the world. I do not believe in the Farmers' party, and a Farmers' Government would be disastrous. It would mean class rule. The object of the British Constitution has always been for fair representation of all classes, and this means fair protection for each particular class. Having these views, but also feeling that the industrial classes of England were not proportionately represented in the Imperial Parliament—and I do not think they are equitably represented to-day in your Parliament in Canada, I endeavored to work out a plan by which we could get this representation without anyone being able to point out that we, as industrialists, were attempting to form a party or to bring influence on the Government to the detriment of the other classes of the community. This resulted in the formation of the British Commonwealth Union. The Federation of British Industries accepted our views, and their members liberally responded in the way of funds."

Protection of Industry.

The lines of procedure were explained by the speaker, showing that any candidate or member, whether Liberal, Unionist, or Tory, was only required to pledge himself to stand solidly with the British Commonwealth Union in regard to the protection of industry. As a result, 87 members of Parliament were elected who were pledged in that way, and others had followed, so that to-day there were 100 members of the Imperial Parliament pledged to protect manufacturing interests in the United Kingdom. Col. Morden said he was chairman of the political committee of that Union. As to the supposition that he would be opposed by labor as the representative of capitalists, he said labor leaders in England were beginning to realize to-day that the interests of capital and labor were one. There had been no outcry from labor in England either in respect to industrial consolidations or banking consolidations, though more of such combinations had taken place in the last year or two than in the last half century.

"Our labor leaders in England have learned much; they have a great vision of Empire," continued Col. Morden. "Surely your labor leaders are not going to be behind in their views with the labor leaders of the United Kingdom? Why, with their initiative, they should welcome consolidations of industrial concerns, which mean greater stability to industry, which assures greater security of tenure of employment. They should also know that the more prosperous a concern becomes, the more that concern can afford to distribute amongst its employees.

"My business colleagues in Canada and myself are to-day giving great attention to a plan that will be announced in due course, by which we will give our employees not only an opportunity to participate in the success of our industry,

but also for representation on our directorate. I always believe in meeting labor, not across the table, but around the table."

The Canadian Association in London, of which he is chairman, was next referred to by Col. Morden. Its aim was to co-ordinate and combine efforts to advance the interests of the Dominion. Now he had been empowered by the committee to place before the Canadian Manufacturers' Association their willingness to convert this organization into a Canadian Chamber of Commerce in London. The American Chamber of Commerce there had accomplished great things for its own country. "If your organization will support us, we are prepared to take the bulk of the financial burden and devote our energy to the building up of a Canadian Chamber of Commerce in London. The Minister of Trade and Commerce, Sir George Foster, now acting premier, has stated to me that, provided we establish such a Chamber of Commerce on lines that would be beneficial to Canada, and of a permanent nature, he is entirely in favor of it being done.

Inland Waterways

Col. Morden emphasized the transportation possibilities of the St. Lawrence if its canals were enlarged, and asserted that in spite of the vaporings of a certain member of Parliament at Ottawa, Canada had the cheapest water transportation in the world. Was it realized that a ton of bulk freight was carried eastwards for one-tenth of a cent per ton per mile, that the Canada Steamship Lines carried a ton of freight 1,000 miles for one dollar? Also, that it carried bulk freight westwards for exactly half its eastern rate, which meant carrying a ton of freight 1,000 miles for fifty cents? Ocean tonnage to-day costs over three times that amount. Apparently the member for North Lambton did not consider for one moment the cheapness of the rates or the efficiency in the service. All that he did was to point out that this company had built up in the course of seven years assets two or three times in excess of their original value. "Let me say that this company until last year did not distribute any of their profits in dividends to their common stockholders. I can give a reason why, with these abnormally low rates, the company can make a substantial profit. I can give the answer in one word, and that word is efficiency."

Touching on the shipbuilding industry, the speaker referred to the steel plants of Sydney, and their wonderful facilities in having the raw material at hand, and the finest geographical position. It would be obvious that with ships, there would be a complete circle in industry, which would make the country quite independent. The British Empire Steel Corporation was going to build ships. Iron and steel had made both England and the United States. Canada was now getting her opportunity.

Commons' Criticism

The recent debate inaugurated by Mr. Richardson in the House of Commons, when he introduced a motion to investigate the British Empire Steel Corporation was next reviewed by Col. Morden, who said the member for Springfield had apparently been misled by a most malicious letter from a source not disclosed. As to Dr. Michael Clark's criticisms, if his reasoning were followed, the industrial interests of Canada would have no protection whatever, and Canada would be used as a dumping ground for foreign manufactures. The speaker expressed appreciation of the speech made by Mr. Nesbitt, North Oxford, also that of Col. Currie, North Simcoe, in which they pointed out that the United States Steel Corporation, the greatest steel corporation in the world, was selling steel at very much lower prices than any independent company, and that this corporation had proved a great benefit to the United States as a whole. As to W. F. Maclean's comments, Col. Morden wondered if he had not been reading the newspapers and heard of the Government railroad deficits? Did he want the people of Canada to pay for similar deficits in the water transportation companies or the steel companies? Remarks that the English labor men were all free traders were not correct. They had had practical experience in the past of the harm wrought by free trade. Some of these critics should cross over and test feeling at the present day. The leader of the Opposition the Hon. Mackenzie King, said Col. Morden had made a most statesmanlike speech. He had said that competition was not between company and company, nor country and country but between continent and continent. How could Canada, in point of capital and population, ever expect to compete against the great and wealthy nations of the world unless she combined her own interests in similar lines of industry, unless she associated these with others within the Empire, which would provide her with the capital, the experience and the marketing powers possessed particularly by the United Kingdom? We must have industrial partnership within the Empire. With such partnership we can defy all outside competition. We can then have free trade within the Empire. When the public of Canada fully realized the ultra-conservative capitalization and the whole method of procedure in this consolidation, and the advantages that were going to accrue not only to the shareholders of the individual companies, but to Canada as a whole, instead of one word of criticism, there would be nothing but praise.

Tuckett Tobacco Co.

A Good-sized Increase in Profits Recorded by this Company for Last Fiscal Year

Profits of the Tuckett Tobacco Co. for the year ending March 31st, amounted to $333,131, as against $264,113 in 1918-19 and $201,481 in 1917-18. Earnings on common were about 7.7 per cent. as compared with 4.5 per cent. in the previous year. After paying $140,000 on preferred and $50,000 on ordinary shares, the balance at profit and loss stood at $605,177, which represents an increase from $462,046 for the year. In his report, the president, Mr. Howard S. Ambrose, states that to meet the increased demand for cigars additional factory space has been acquired adjoining the Montreal plant.

Back Numbers Wanted

If any of our readers have copies of the May, 1919, and October, 1919, issues of INDUSTRIAL CANADA, for which they have no further use, would they be kind enough to send them to the office of publication, 1301 Bank of Hamilton Building, Toronto. Both these issues are completely out of print and a few copies are urgently needed.

Toronto Branch Reviews Its Year

By H. MACDONALD
Secretary Toronto Branch, C.M.A.

IMMEDIATELY following the annual meeting of the Ontario Division on April 29, the Toronto Branch held its annual meeting. After a short adjournment at five o'clock, dinner was served at seven o'clock, and business was resumed immediately thereafter.

The first item on the agenda was the report of the Secretary, which read in part as follows:—

"During the year, the Executive Committee which, inclusive of *ex-officio* members, consisted of 23, was convened at 32 meetings—12 ordinary and 20 special occasions—as against 30 in the preceding year.

"Two special general meetings of the Branch were held in the course of the year—one on September 26th, to receive a report of the National Industrial Conference held in Ottawa, September 15th-20th, when it was unanimously agreed to recommend to the General Executive Committee that a permanent Department of Industrial Relations be organized to study labor questions, and to be prepared to furnish expert assistance in connection with any further industrial conferences that may be held.

"Another special general meeting of the Branch was held on Wednesday, 29th January, when an important address was delivered by Mr. Thos. Mulvey, K.C., Under Secretary of State, Ottawa, on "Blue Sky Law"—a bill for this purpose having been introduced last year in the local Legislature.

Work of Educational Committee

"The Educational Committee held two meetings, and the usual prizes, amounting in value approximately to $200, were awarded to the evening classes in the Central Technical School. Fifty-two scholarships donated by members of the Toronto Branch were awarded to qualified students in the day school, with conspicuously satisfactory results. A grant of $50 was awarded to the Ontario College of Art for the current year. It should be noted that the Association, through its membership in the Advisory Industrial Committee of the Board of Education, is directly represented in the administration of the Central Technical School, the representatives being Messrs. Geo. Brigden, W. C. Coulter and W. H. Shapley. According to the terms of the Ontario College of Art Act (No. 177, 2 Geo. V, 1912), the Association is entitled to a representation of two, the present representatives being Messrs. John Alexander and Thos. Roden.

"Messrs. Thos. Roden, W. C. Coulter and A. Nieghorn were elected representatives to the Bureau of Industrial Research, Royal Canadian Institute, for the ensuing year.

"Mr. George Brigden was appointed the representative of the Branch on the Joint Committee of Technical Organizations.

"Messrs. Thos. Roden and Ed. J. Freyseng were appointed representatives on the Citizens' Business Council, organized to co-operate in assisting in replacing discharged soldiers in civil life.

"Messrs. W. C. Coulter, J. P. Murray and the Secretary were appointed an Advisory Committee to assist the Victory Loan Toronto Executive.

"The Chairman and the Secretary were appointed as representatives of the Branch on the Executive of the Ontario Safety League.

"The average attendance at meetings of the Executive Committee has been five, which constituted a good working quorum. In this connection, we are happy to realize that all the members of the Executive Committee are always available to us with their counsel and advice, when special occasion requires.

"The expenditures from the general revenue of the Association for Branch purposes during the past year amounted to $3,897.30, an increase of $1,405.41 over the corresponding period of last year.

"The classification of membership indicates a possible revenue receivable from the territory allotted to the Branch of $33,190.00, being an increase of $9,960.00 on the previous year, due chiefly to the increase of fees and partly to increased membership.

"One hundred and thirty-one applications for membership were received and accepted for the year and 39 resignations, chiefly due to firms discontinuing business and amalgamations—some lines being adversely affected by the abnormal trade conditions—there being no resignation known as due to dissatisfaction with the services given in any of our Departments. Our Toronto Branch membership now stands at 920 firms and corporations, a gratifying net increase of 92 for the year.

"The Bureau of Advice and Information also received, during the year, numerous inquiries and extensive correspondence. Our members have evinced continued appreciation of this Department, its services unquestionably saving



T. A. Hollinrake
The A. R. Williams Machinery Co., Limited
Chairman, 1920-21, Toronto Branch

a considerable amount to the manufacturers. Advertising schemes, in particular, should, when any doubt exists, be referred to the Bureau of Advice and Information before any contract is made. Numerous statutory declarations and affidavits for members were taken by your Secretary during the year.

"Your Secretary attended the sittings of the Royal Commission on Industrial Relations in the City Hall on May 26th, 27th and 28th, and organized the delegates appointed to give evidence as to the causes of industrial unrest."

Executive Committee's Report

An exhaustive report on the year's work was next presented by the Executive Committee. This report referred in detail to the organization work done by the Executive in connection with the sittings in Toronto of the Royal Commission on Industrial Relations; the efforts put forth by the Branch to secure a settlement of the labor unrest arising from the deadlock in the metal industries; the participation of the Branch in conferences having in view the unifying of proposals for a civic war memorial; consideration of the question of uniformity in the payment of returned soldiers under vocational training, etc. Other matters dealt with included the street car strike, the formation of a police union, the establishment of closer relations between engineers and manufacturers, offences to the city smoke by-law, the coal situation, representation of manufacturers on public bodies, shortage of power, amendments to the Assessment Act, and burdensome taxation. In conclusion, the report said:—

"The industries during the year have been working under exceptional circumstances. Among the difficulties they are at present combating are shortage of skilled labor, high operating costs, serious shortage of raw material, and lack of coal, while there is a preponderance of orders at the mills.

"Generally speaking, the work of the past year has been of a character that necessitated an unusual amount of research, correspondence and compilation, with useful results accomplished.

"Due to the divisional organization of the Association, the sphere of work of your Committee has of necessity been confined to subjects of an immediate and local character, but these furnish such variety and scope as to fully engage the time of your Executive Committee and sub-committees. Not only have unprecedented burdens been borne by the official staff, but the abnormal demands upon the committees, which have far surpassed any previous year, suggest that next year the Executive should consider some plan of arrangement rendering less frequent meetings necessary, without in any way intending to impair the services."

Educational Committee's Report

A valuable report on the year's developments in connection with technical education in Toronto was presented to the meeting by George Brigden, chairman of the Educational Committee. After referring in a general way to the increasing importance of education in the life of the nation, the report went on to give practical information about the work in the city.

"Members of the Toronto Branch, appreciating the fundamental value of education, have contributed last year more generously than ever to the scholarship scheme. In the day school, 52 scholarships donated last year by members of the Toronto Branch were awarded to an equal number of pupils on the results of the previous year's work.

"It may be interesting to note the progress made since 1916, when the present scheme was inaugurated.

1916	31	scholarships
1917	45	"
1918	51	"
1919	52	"

amounting in all to $4,475.

"The usual prizes were donated to students in the evening school, amounting to approximately $200. The report of the Principal, Dr. McKay, concerning the work of the Central Technical School and the branch technical schools during the past year, is as follows:—

" 'The registered attendance for the academic year 1919-20 has been as follows:—

DAY CLASSES.

Regular courses	1,316	
Special courses	766	
Returned soldiers	864	
		2,946

EVENING CLASSES.

Central School	7,053	
Humberside Branch	108	
Oakwood Branch	235	
Riverdale Branch	494	
		7,890
Total		10,836

" 'Comparison of these figures with those of former years shows that our work is extending, and is influencing the lives of continually increasing numbers of young people.

Technical School Crowded

" 'During the fall and winter terms, every room at the Central Technical School was in use every day. In fact, the pressure on our space was so great that we were compelled to move the steel lockers from two of our specially designed locker rooms, in order that these might be used as class rooms for returned soldiers.

" 'For four years we have been conducting classes for returned men, in co-operation with the Soldiers' Aid Commission. In these classes we have had about three thousand men, and I am proud to say that the great majority of these persons have made a success of their new venture, and are now happily situated in new self-supporting vocations.

" 'The Dominion grant for the support of Technical and Industrial Education is making possible the extension of this type of educational work, not only in Toronto, but also in the towns and villages of Ontario. This grant, and the supplementary equal amount which must be added by the Province, make provision for fifty per cent. of the cost of buildings and equipment, as well as at least twenty-five per cent. of salaries of approved teachers. This is the most liberal support ever given in Canada to any type of educational work, and makes industrial education a possibility for every live community.

" 'The support given to this work in former years by the Canadian Manufacturers Association and other representative bodies is just now bearing fruit. The scholarships and prizes given to the Central Technical School by the members of the Association were all awarded to worthy students. The support and good-will, evidenced by the interest and generosity of the Canadian Manufacturers Association, bring much encouragement to those of us who are responsible for

the conduct of the schools. As Principal, I wish to express my appreciation of the many personal kindnesses shown to me by the manufacturers of the City of Toronto.'

"Your Committee, acting on a report by its Educational Committee, has resolved to appeal to last year's donors of $25 scholarships for a renewal of their award for the ensuing year. When it is stated that only 8 per cent. of the children of the Province have more than a primary education, the need will be apparent. The secretary will be glad to receive the names of educational donations. The Industrial courses in the Central Technical School extend over three years, and the scholarships are paid upon examinations, in three instalments each year. It is obvious that the efficiency acquired by a three-years' industrial course makes students, thus equipped, desirable candidates for vacancies in our industrial corporations."

Report of Exhibition Committee

The report of the Exhibition Committee, of which G. T. Irving is chairman, dealt with the improvements in the exhibits noticeable at the last Exhibition. It was explained that. "A circular was issued on 4th November last to 250 manufacturers of machines and machinery listed in the Canadian Trade Index, designed to obtain expressions of opinion from manufacturers in respect to the value to them of an opportunity to make an annual display of their products at the Canadian National Exhibition, in a new building, adequately equipped to handle the heaviest lines. It was estimated that the cost, approximately, of such additional accommodation would be $500,000, and it was proposed that charges, commensurate with the cost and maintenance, be made for space.

"Thirty-four favorable responses were received, and from an examination of the names, it appeared that the manufacturers of heavy machinery are sympathetic to the proposal. It is confidently believed that the Exhibition officials would have little difficulty in disposing of the space, and thus building up a demonstration of great value to this important branch of industry."

Mr. T. A. Russell resigned from the Manufacturers' Section of the Board and was elected honorary president and a life director of the Exhibition.

Mr. J. S. McKinnon was elected to succeed Mr. Russell in the Manufacturers' Section.

The Board of Directors of the Exhibition has reappointed Mr. G. T. Irving Chairman of the Section, and the following to act as vice-chairman of the different buildings for the ensuing year:

Manufacturers'—Mr. E. J. Freyseng.

Manufacturers' Annex—Mr. George Brigden, Mr. S. H. Chapman.

Grounds—Mr. S. Harris, Ald. Clifford, Mr. E. Blackburn.

Industrial—Mr. J. Firstbrook, Mr. T. Roden.

Transportation—Mr. J. S. McKinnon, Mr. W. C. Coulter.

Machinery Hall—Mr. J. P. Murray.

Government Building—Ald. S. Ryding.

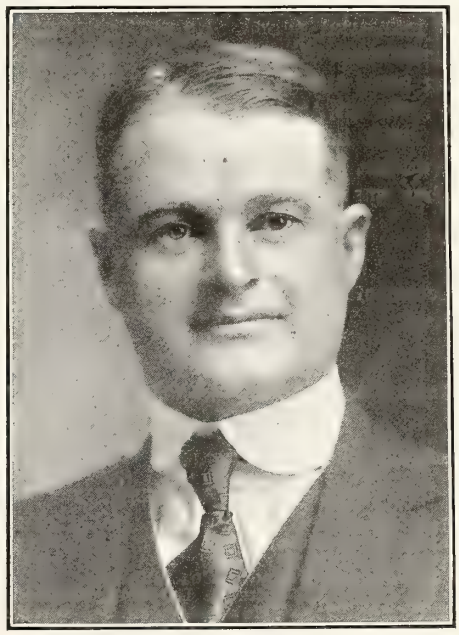
Electric Building—Mr. E. F. Crossland, Mr. H. H. Couzens.

Retiring Chairman's Address

The annual address of the retiring chairman, Mr. W. C. Coulter, was a comprehensive review of a number of the outstanding problems of the day, and was listened to with close attention by those present. Speaking on post-war adjustments, Mr. Coulter said:

"One year ago to-day we had not yet recovered from the joy of achievement which we had celebrated with much enthusiasm on November 11, 1918, and we were looking forward to the coming year with expectancy, but with misgivings. The last stage of the history of a critical period had been written, but even then there were the shadows of a host of perplexing problems that threatened the peace of the world. During the past year these problems have assumed more concrete form, some have indeed already been met and successfully faced, but still we must look forward to meeting and solving many of the after war problems.

"A year ago to-day the one problem that loomed largest was probably that of putting the munition worker and returned soldier back into civil occupation. Men used to get together and reflect on the problem that faced the city, the province and the nation. It was felt by us in the City of Toronto that the greatest difficulty would be met here, as Toronto had been the greatest centre of recruiting and munition manufacturing, and that our difficulties would there-



R. H. Easson
Vice-President, The Otto Higel Co., Limited
Vice-Chairman, 1920-21, Toronto Branch

fore be greater than any other part of the country. Some men went so far as to urge that the Government should delay the bringing of the soldiers home, so that the situation should not be aggravated or should only be brought home as occupations for them should be found. These suggestions, ignoring as they did the rights and feelings of the soldiers long absent from their own country was, of course, impossible of acceptance, and the army was brought home as rapidly as shipping could be provided.

"It was estimated that at the time of the armistice 80,000 men in or from the City of Toronto were employed in the army and on military work. This, therefore, seemed a tremendous problem to face. But what has become of this problem that so affrighted us? It is astonishing how well the city and the country have tided over the period in which the resumption of ordinary industry took place. There has been a certain amount of unemployment, but nothing such as was feared. The achievement of this almost miracle has been due to the individual recognizing his responsibilities in the matter, and each and all doing the most that could be done to put the returning men back into industrial life.

"If we will but contemplate this one achievement, we have much to encourage us to go forward and meet the other problems that remain. If we will each recognize our responsibilities as we did in the case of finding employment for the returned soldiers, in the settlement of our other problems, we will look backward next year upon their solution also."

After referring to Canada's contribution in money to the war, with all its attendant expenses, Mr. Coulter said that it was gratifying to find that Toronto's Industrial Department had brought thirty-six new industries to the city within the last year. While most of these were from the United States, it was interesting to find that Great Britain was awakening to the advantage of locating branch industries in Canada.

Mr. Coulter then dealt with the strikes of the past year and with the agitation for an eight-hour day. He then referred at some length to the subject of group insurance, which he declared to be an important factor in solving the problem of industrial unrest. He next commented favorably on the appointment of a permanent tariff commission, and after giving some attention to the power and fuel situation, wound up with an appeal on behalf of the Special Fund Campaign. This latter appeal was later supplemented by Mr. S. R. Parsons, who went very thoroughly into an explanation of what was involved.

Election of Officers

The election of officers was next proceeded with, resulting as follows:—

CHAIRMAN.

T. A. Hollinrake, A. R. Williams Machinery Co., Limited.

VICE-CHAIRMAN.

R. H. Easson, Otto Higel Co., Limited.

EXECUTIVE COMMITTEE.

C. H. Carlisle, Goodyear Tire & Rubber Co. of Canada, Limited.
F. S. Corrigan, Sheet Metal Products Co. of Canada, Limited.
E. J. Freyseng, Freyseng Cork Co., Limited.
W. R. Gibson, Gurney Foundry Co., Limited.
A. H. Gourlay, Gourlay, Winter & Leeming, Limited.
A. E. King, Dunlop Tire & Rubber Goods Co., Limited.
Walter Laidlaw, R. Laidlaw Lumber Co., Limited.
R. L. McIntyre, McGregor & McIntyre, Limited.
T. F. Monypenny, Imperial Varnish & Color Co., Limited.
Chas. Morrison, Jas. Morrison Brass Mfg. Co., Limited.
J. Allan Ross, Wm. Wrigley, Jr., Co., Limited.
J. A. Scythes, Scythes & Co., Limited.
W. H. Shapley, Sterling Action & Keys, Limited.
H. D. Scully, Willys-Overland, Limited.
E. G. Staunton, Staunton's, Limited.
J. F. M. Stewart, Point Anne Quarries, Limited.
H. A. Telfer, Telfer Bros., Limited.
Geo. Valentine, Massey-Harris Co., Limited.
Geo. W. Watts, Canadian General Electric Co., Limited.

Resolutions Passed

Three resolutions were passed by the meeting. The first dealt with the shortage of power and was as follows:—

"Whereas, during the past winter, a large number of the Toronto members of this Association have suffered very considerable loss as a result of the serious shortage of power—a single member having, in ten weeks, lost 36,000 hours' work;

"And whereas, such loss involves a most serious decrease in production at a time when the greatest possible production is imperatively necessary;

"And whereas, such loss falls not merely on the employers, but on the workers, who stand to lose the wages they would otherwise earn;

"And whereas, even if the special difficulties encountered at Niagara in the past few months were overcome before another winter, there would still, unless adequate steps are taken, be a serious shortage, owing to the fact that many of the industries at present served, will require an increased supply, and many other industries will be certain to need hydro power;

"Therefore, be it resolved by this Toronto Branch of the Ontario Division of the Canadian Manufacturers Association, in annual meeting assembled, that the above considerations be brought to the attention of the Toronto Hydro-Electric System, and that the System be urged to consider the advisability of establishing one or more auxiliary steam plants, with a view to preventing a shortage of power, which might well be so serious as to be critical."

Development of Fuel Resources

The second resolution urged that the Government take immediate steps to formulate a policy for the development of Canada's fuel resources. It read as follows:—

"Whereas Canada's dependence for fuel on foreign countries is increasing to the point of being, economically, a menace;

"And whereas no proper steps are being taken to develop Canada's vast fuel and power resources, in spite of the strongest recommendations made by the Dominion Fuel Controller, which recommendations were referred to the Advisory Council for Scientific and Industrial Research, and in spite of the fact that a Dominion Power Board and a Lignite Utilization Board were appointed over a year ago;

"Therefore, be it resolved that the Dominion Government be petitioned to take immediate steps, in co-operation with the interested Provinces, to formulate a comprehensive policy for the speedy development of Canada's coal, peat and other fuel and power resources, with a view to removing the very real menace constituted by the country's present position of humiliating dependence on foreign countries."

Scientific and Industrial Research

The third resolution had to do with the subject of scientific and industrial research:—

"Whereas the industrial condition of Canada's present problems calls for careful consideration and adjustment, and demand that Canada shall by all the means available develop her abundant resources to the full;

"And whereas the Federal Government now has the service of an Advisory Council for Scientific and Industrial Research;

"Be it therefore resolved that the Toronto Branch of the Canadian Manufacturers Association, in annual meeting assembled, request that the Federal Government direct the Advisory Board to co-operate with our industries, to the end:

"1. That information bureaux be organized to supply information to manufacturers of new processes and technique in their industries;

"2. That a laboratory be instituted for the solution of industrial problems, and the discovery of means for the utilization of substitutes and the avoidance of waste.

"Be it further resolved that the Government be urged to see that such sums of money as may be necessary for the putting of these plans into operation are placed in the estimates, so that definite early action may be possible."

Pacific-Burt Co.

Profits For the Past Year Increased by Seventy-five per cent. Over Previous Year

Profits of the Pacific-Burt Co., Limited, for the year ending March 31st last were $139,216, comparing with $83,743 for the previous twelve months, being an increase of about 75 per cent. After all deductions, $53,889 was carried forward, as against $29,654 in 1919. In his report, the president, Mr. S. J. Moore, states that new records were established both in respect of volume of business and of net profits, and this was accomplished in face of a world scarcity of paper.

Hamilton Branch Closed Successful Year

By H. E. WATERMAN
Secretary, Hamilton Branch, C.M.A.

THE annual meeting of the Hamilton Branch was held at the Royal Connaught Hotel, on the evening of May 11, and was very well attended. The Branch Chairman, Mr. George H. Douglas, who had been away from home for about two months, returned just in time to preside at the meeting.

The year's activities of the branch were covered very fully in the chairman's report, which read in part as follows:

"One of our strongest advocates of the Made-in-Canada idea is Mr. F. H. Whitton, Vice-President and General Manager of the Steel Company of Canada, Limited, and we were fortunate in having him address a meeting of the members of this branch in the Connaught Hotel on this important subject. The attendance was large and fully appreciative of the splendid address delivered, and all present unanimously agreed in the principle of the Made-in-Canada movement.

"Along this line I might say that according to information at hand Canada bought goods to the value of $483,159,230 from the United States during the seven months ending January this year, as against $542,472,967 for the corresponding period ending January 1919. Canada's sales to the United States for these periods were $319,160,730 and $292,490,855 respectively. Thus the excess of imports over exports respecting Canada's adverse balance of trade with the United States in the seven months ending January, 1920, was $162,142,500, as against $242,982,112 for the same period ending January, 1919; a reduction of about $90,000,000.

"In this reduction of $90,000,000 in Canada's excess of imports from the United States we find a source of congratulation and a move in the right direction, as the less of our needs are imported the more of our own resources are we drawing from. The aim of Canada should be, first—to buy within her boundaries for her own needs as far as practicable, and then second—trade within the Empire.

Preferential Trade Relations

"Following out the idea of trading within the Empire, a resolution was passed by this branch and forwarded to the Executive Council of the Association advocating that immediate steps be taken to extend preferential trade relations to all parts of the British Empire, and that the matter be at once taken up with the authorities with a view to securing the object of this resolution.

Meeting of Ontario Division.

"The Executive Council of our Association honored Hamilton with its meeting place in January last. The meeting took the form of a luncheon, to which were invited all the members of the Ontario Division. We were fortunate in having with us, as speaker following the luncheon, Mr. T. B. Macaulay, President Sun Life Assurance Company of Canada, who delivered a splendid address on 'Closer Trade Relations with the British West Indies.' Mr. Macaulay is a forceful speaker, and all who heard him enjoyed a real treat. Following his address a resolution was passed urging that the Government take up the question of bringing about closer trade relations with the West Indies.

Hydro-Electric Power

"Users of hydro-electric power were greatly curtailed in their supply during the past winter months and were harassed with frequent shut-downs of varying duration. It was a serious handicap to the industries affected, as they were all working full and in an effort to get out production. A general meeting of hydro power users was called in January last, to which were invited the local Hydro Commissioners and their Engineer, Mr. Sifton, and Engineers Gaby and Jeffrey of the Ontario Commission. Mr. Gaby was called upon to explain to the manufacturers present the general situation with regard to hydro power. He went very exhaustively into the matter, and in the course of his remarks explained that the sudden shortage of power and shut-offs was the result of ice trouble in the Niagara River. This was a condition in which enormous amounts of money had been spent in order to overcome but without success, and it was not thought that much relief could be expected in the situation as long as ice conditions would last. Eleven thousand horsepower was added about February 1st, and some 1,300 horsepower was diverted from the City Waterworks on account of their turning to steam. A number of the manufacturers spoke of their own personal experiences, and all were looking forward to any relief which may be obtained. The general feeling was that the Hydro-Electric Commission had over-sold their supply.

Employment of Returned Soldiers

"The members of this branch, I am pleased to say, are continuing their co-operation with the Department of Soldiers' Civil Re-establishment in the employment of the returned men, positions being found for them where at all possible. In the Vocational Training Branch of the Department of Soldiers' Civil Re-establishment returned men who are incapacitated with wounds or illness, to carry on their former employment are being taught new trades and educated in many branches of technical training. A number of these men are receiving their vocational training in a practical way in our factories, while being carried on the payroll of the Government, and in this way our members are co-operating with the Vocational Training Branch in the re-establishment of the maimed and incapacitated soldiers.

Customs Tariff

"One of the most important matters engaging the interest of the manufacturers of Canada is the maintenance of an adequate and stable tariff for the protection of Canadian industry. Strong efforts on the part of western interests have been put forth toward securing drastic reduction of the tariff, which, if adopted, could only have the most disastrous results upon the industrial and employment conditions of our country, and I would therefore strongly urge your co-operation in every way in the efforts of the Association in the interests of Canadian industry and Canadian labor.

Workmen's Compensation Act

"Regarding the proposed amendments to the Workmen's Compensation Act, you are no doubt all familiar, through information received from our head office, of the drastic changes that are proposed in the Bill which has been presented to the Legislature. This matter has been closely watched by a strong committee of the Association, who have waited upon the Government and laid before them their oppo-

tion and views, and this matter was the subject of a strong resolution passed by Hamilton Branch, which reads:

"'The members of the Hamilton Branch, Canadian Manufacturers Association, strongly protest against some of the proposed amendments to the Workmen's Compensation Act.

"'We approve of the increased grant to widows and children and strongly oppose the increase from 55 per cent. to 75 per cent. in compensation rates and the minimum rate of $12.50 per week and the making of any increase retroactive, for the following reasons:

"'1. Sufficient reason has not been shown for any change in the present Act, but a survey of two hundred and fifty cases out of two thousand five hundred and sixteen disability cases shows that pensions have, on the whole made up the wage loss resulting from injury. Furthermore, many employees will now benefit from the disability benefit in group insurance, and many workmen also have lodge benefits.

"'2. The proposed amendments are wrong in principle. They are designed more for old age and unemployment than for loss of wages to active workers. The proposed minimum disability of $12.50 per week is practically vicious, in that it is an inducement to malingering, especially to all wage-earners whose wages are less than $12.50 per week.

"'3. The proposed increase will only make worse the present evil of too large a percentage of the agricultural young men drifting into the city under the lure of better wages, thus decreasing the so much-needed production and increasing the high cost of living.'

"This resolution was forwarded to local members of the Legislature, Hon. W. R. Rollo, Minister of Labor and Health, and Mr. Geo. G. Halcrow, M.P.P., and a copy sent to our head office with a recommendation that they circularize the farmer members of the Legislature, pointing out the effects the proposed increase would have in inducing agricultural workers to come into the city under the lure of better wages and conditions.

Consolidated Railway Act

"Once more the long-discussed amendment to the Canadian Railway Act has been brought before the Government at Ottawa. This involves, as it has been explained in former reports, the control of water carriers by the Dominion Railway Commission. Notwithstanding repeated defeats the sponsor of this Bill continues to bring it up year after year, and it seems unfair that one individual representative should continue to aggravate all industrial interests, who have shown conclusively under good evidence, the unreasonableness of the efforts being made to restrict our waterways by Commission control. A great mass of evidence and protests have been sent in from members of this branch, as well as from the shipping interests all over Canada, and our local member, Mr. T. J. Stewart, presented strong arguments in opposition to this Bill on the floor of the House, and it is felt that nothing further will be heard of the Bill, at least during this session of Parliament.

"The membership of this branch at the last report included 190 firms, with a total of 215 representatives, and after adding the new members and deducting the resignations the membership of the branch now totals 200 firms with 234 representatives.

"During the year one of our members was called by death in the person of Mr. John T. Irwin, of Thos. Irwin & Son. Mr. Irwin was prominent in the social and industrial life of our city and his passing has been a great loss to our Association and the city."

Election of Officers

The following officers were then elected for the ensuing year:

CHAIRMAN.

George H. Douglas, Thornton & Douglas, Limited.

VICE CHAIRMAN

A. L. Page, Frost Steel & Wire Co., Limited.

EXECUTIVE COMMITTEE

Hon. Col. Bertram, T. & J. Bertram & Sons Co., Limited
George C. Impey, Copper, Nesbitt & Randall, Limited.
J. A. McMahon, The Union Drawn Steel Co., Limited.
W. R. McNeil, Bird & Son.
H. P. Hubbard, E. C. Atkins & Co., Limited.
W. R. Dunn, International Harvester Co. of Canada, Limited.
Cyrus A. Birge, Steel Co. of Canada, Limited.
Robert Hobson, Steel Co. of Canada, Limited.
C. W. Sherman, Dominion Steel Foundry Co., Limited.
A. F. Hatch, Canada Steel Goods Co., Limited.
F. J. Gernandt, International Harvester Co. of Canada, Limited
F. R. Close, Duncan Lithographing Co., Limited.

Re Budget—New Excise Taxes

The Tariff Department of the Association is keeping in close touch with the new taxation proposals contained in the Budget. Copies of rulings made by the Department of Inland Revenue are on file in the office of the Tariff Department, and inquiries relating to the operation of the tax schemes addressed to the Tariff Department will receive the prompt attention of Mr. R. N. McCormack, assistant manager of that department.

A Circular Letter, No. 255, accompanied by the text of resolutions, has been sent out to all members and also a Supplement, No. 1. Further supplements will be issued from time to time as rulings are received.

Manitoba Workmen's Compensation

In a reference to the features contained in the new Workmen's Compensation Act in Manitoba in the May issue, it was stated that the waiting period had been reduced from six to three days. While correct enough in itself, it should perhaps have been explained that there is no come-back included. That is to say, no compensation is allowed for the three days of waiting. This differs from the Ontario law, which, while requiring a wait of seven days before compensation is allowed, dates the payment of compensation back to the time of the injury.

Manitoba Council of Industry

In connection with the amendments to the Industrial Conditions Act, passed by the Manitoba Legislature at its last session, a joint council of industry has been appointed. The chairman is Rev. C. W. Gordon. The employers' representatives are Messrs. John Stovel, the Stovel Co., Limited, and H. B. Lyall, and the employees' representatives, Messrs. W. B. Simpson and E. Robinson.

Section 20 and 21 of the Act recognize the right of employers and employees to organize and provide that employers and employees shall have the right to bargain with one another, individually or collectively, through their organization or representatives. In the event of a dispute between employers and employees as to the method or manner or terms and conditions of such bargaining, such disputes shall be submitted to the Joint Council of Industry.

Employers are being advised to have some understanding with their employees for a satisfactory arrangement as to the manner in which negotiations between the two shall be carried on, as it is felt that the Joint Council of Industry will not interfere where some plan is in effect for negotiations between employers and employees that is satisfactory to the majority.

Industrial Hygiene in Canadian Factories

Formation of a Committee to Give Practical Help in Canadian Industry—Functions of the Committee Outlined—The Economic Value of Industrial Medical Departments Explained — Some Examples of the Effectiveness of the Work

Prepared under the direction of the Committee on Industrial Fatigue

By R. M. HUTTON
Secretary of the Committee

THE CANADIAN Government has recently established a Committee which should be of practical use to the whole of industry, both to manufacturers and to labor. The Committee, which is under the Honorary Advisory Council for Scientific and Industrial Research and is known as the Committee on Industrial Fatigue, is composed of the following members:

Professor J. J. R. Macleod, Department of Physiology, University of Toronto (Chairman.)
Mr. E. A. Bott, Department of Psychology, University of Toronto, (Honorary Secretary).
Dr. A. B. Macallum, Administrative Chairman, Honorary Advisory Council for Scientific and Industrial Research. (Ex-officio.)
Professor Asselin, Department of Physiology, Laval University, Montreal.
Professor Dagneau, Department of Anatomy, Laval University, Quebec.
Professor D. Fraser Harris, Department of Physiology, Dalhousie University, Halifax.
Mrs. George Hambleton, representing women's organizations and social work.
Mr. John Lowe, Jr., the Montreal Cottons, Ltd., Valleyfield, Que.
Mr. J. A. McClelland, representing the Department of Labor, Ottawa.
Professor John Tait, Department of Physiology, McGill University, Montreal.
Professor William Tait, Department of Psychology, McGill University, Montreal.



Prof. J. J. R. Macleod
Chairman of the Committee on Industrial Fatigue

Means of Communication With The Committee

Eventually it is hoped to establish offices in all the chief industrial centres. At present only one office has been established. This is in the Medical Building of the University of Toronto. Enquiries will be welcomed, and should be addressed to the Secretary, R. M. Hutton, Committee on Industrial Fatigue, care The Medical Building, University of Toronto.

The Purpose of the Committee

The functions of the Committee are purely advisory and investigatory.

Its general purpose is to make the knowledge and experience of Medical Science, as it bears on industrial health and efficiency, available for all industry. Thus the Committee thinks that it can help employers to increase production by reducing lost time and labor turnover, and can help employees to maintain steady wages and employment by reducing preventable illness and unnecessary hardships of working conditions.

Its main objects are:—

1. To offer manufacturers the assistance of scientific laboratories in solving the health problems presented by particular processes in their plants.

2. To offer all interested the use of the Committee's intelligence bureau where the most up-to-date information on general and specific problems of industrial hygiene is kept.

3. To co-operate in investigations into the conditions in different industries: into the incidence and causes of sickness, whether occupational or general; and into the actual relation existing between hours of work, working environment, etc., and production.

Use of Scientific Laboratories

1. *To offer manufacturers the assistance of scientific laboratories in solving the health problems presented by particular processes in their plants.*

For this purpose the Committee has, as will be seen from the list of members given above, peculiar facilities. The service of the departments of physiology of the various universities, with their laboratories, and specialists, trained in scientific research and experiment, can be utilized, or, where other assistance is required, this can be obtained. Thus, for example, where manufacturers are in doubt as to the possible health effects of some new method or process, the question might in many instances be answered in a scientific laboratory, where the actual effects of the process could be discovered by practical experiment. Again, where certain physical symptoms appear among employees engaged on similar work, scientific investigation can decide whether the symptoms are caused by direct contact, by fume inhalation, or by skin absorption, and, in each case, should be able to indicate the preventive measures to be taken.

Use of the Intelligence Bureau

2. To offer all interested the use of the Committee's intelligence bureau where the most up-to-date information on general and specific problems of industrial hygiene is kept.

In many cases the existence of this bureau will afford

means of answering problems of industrial hygiene without incurring the delay and possible expense of individual investigation. The Committee is in touch with other associations engaged in similar work, both in Canada and elsewhere, and has established a reference library where the best current literature on the subject is obtainable. Reports of trade investigations and surveys, results of scientific experiments, reports and articles by plant physicians, health officers, sanitary engineers, and safety men, etc., are filed and, in some cases, abstracted. The index of this library represents a detailed bibliography on the different phases of industrial hygiene and offers a manufacturer confronted with some specific problems of his plant immediate information as to the difficulties of other manufacturers in the same industry and the solutions which their experience has proved good. In short, the library is planned with the idea that it should be a general clearing house of information by means of which employment managers, plant physicians, sanitary engineers and others can keep abreast of the latest developments and improvements in their particular spheres.

Special attention is paid to occupational hazards, whether disease or accident, particularly from the point of view of preventive medicine. Thus on industries where there are recognized health dangers, as for instance in the printing, painting, stone-cutting trades, or the white lead, rubber, dye and phosphorus industries, etc., the most up-to-date information is being collected. This information deals with the immediate source of danger (whether by touch or inhalation or otherwise), the best preventive measures in use (whether selection of naturally immune employees, use of protective clothing, or introduction of improved exhaust systems), and the best medical treatment after trouble has arisen.

Information will also be available on smaller matters of detail, as for instance on the most useful form of sickness record or the most generally accepted definition of terms such as "labor turnover."

Co-operation in Investigation

3. *To co-operate in investigations into the conditions in different industries; into the incidence and causes of sickness, whether occupational or general; and into the actual relation existing between hours of work, working environment, etc., and production.*

In this connection there seems to be a general concensus of opinion that while statistics on these points from other countries are suggestive they do not do away with the need of finding out the actual facts in our own country and drawing our own conclusions therefrom.

If lost time and labor turnover are to be kept down it is well to have means of judging as accurately as possible what the immediate causes of this lost time and labor turnover are. An obvious cause, and one which, when recognized, can very often be largely decreased, is sickness. The Committee, feeling that facts on this point would be of interest to all employers and employees, is at present, with the co-operation of certain employers, investigating the actual proportion of lost time in certain plants directly due to sickness.

Economic Value of Industrial Medical Departments

The primary way of preventing sickness is the establishment of some form of industrial health supervision. Now that this is being done with increasing generality, whether by the installation of a well-equipped plant hospital with full-time physician, or by the employment of a visiting nurse, or merely by the provision of a "first-aid" kit, it is important to collect information as to the actual results obtained by such means.

The results to an employee are obvious and need no emphasis. The presence of a medical department in the plant where he works provides for the discovery and prevention of conditions detrimental to health; it makes it easy to secure treatment at the first onset of illness; it helps him to get work within, *not just beyond*, his physical capacity; it prevents loss of wages through absence.

Employers Say it is Good Business

From the employer's point of view, one writer deduces the fact that health supervision is of direct economic value from his experience in a recent investigation of 99 establishments in various industries, in so much as no single case was found where health supervision once begun had been discontinued. Another writer quotes the following answers given by well-known firms to the query, "*Why do you have a medical department?*"

"We owe it to our men." "It pays." "It's good business." "It keeps the men on the job." "It is just as necessary as a cost department or any other non-producing department." "To safeguard the health of workers in the belief that the healthy worker is more efficient."

It is not hard to see on what facts such answers are based. The establishment of a medical department first "pays" the employer by preventing the financial loss incurred in hiring the hopelessly unfit worker, whose health is bound to prevent him working himself and to be a source of danger to others. Similarly, it sees that workers with certain disabilities are assigned to departments where their incapacity is neither increased by the necessities of the work nor their output hindered; the flat-footed is given sedentary work, the latent tuberculosis is not sent into constant contact with dust. It "pays" the employer again by reducing the time loss due to sickness: this is done by the early treatment of minor ailments before they become serious ailments, and by the control of infectious diseases.

To take one very common cause of lost time, that is infections and complications arising out of minor and so-called trivial accidents, the following is the statement of Dr. H. E. Mock on an industry employing an average of 12,000 men and women which adopted an efficient medical and surgical system some years ago:

"The number of infections following injuries has been reduced from 28.6 per cent. in 1912 to 7.57 per cent. in 1916. The time lost from infections in 1912 amounted to 1,987 days, or an average of 2⅗ days per case, while time loss from this cause in 1916 amounted to 816 days, or an average of 1⅛ days. This was accomplished in spite of the fact that the working force had increased approximately one-fourth during the same period. This represents a saving of some $5,000 in wages and approximately $5,000 in hospital bills, compensation, etc." **

In another large manufacturing concern the effectiveness of the medical department in keeping down lost time may be argued by comparison of the following figures:

Highest Number of Hours Lost in any Week During May.

	1912-13.	1913-14.
Through sickness	about 810	About 395
Through accident	about 105	About 40
Through personal reason	560	About 330

In making this comparison we have selected the month of May as being apparently a typical month and one where the comparison is not falsified by the presence or absence of in-

**Industrial Medicine and Surgery, Mock, W. B. Sanders Co., 1919, p. 85.

fluenza epidemic or unduly hot weather, or similar possible cause of increased absence. The reduction of lost time in 1913-14 is more marked at various other dates during the year.

A Toronto firm gives the following figures for the lost time among members of its "Sick Club":

Days Lost Per Member Per Month

	1918.	1919.
January	.410	.448
February	.557	.291
March	.470	.351
April	.526	.307
May	.334	.190
June	.320	.213
July	.294	.189
August	.291	.199
September	.319	.165
October	1.748	.198
November	.988	.129
December	.317	.169

That is to say, in 1918, the yearly average loss per man per month was approximately one-half day, and this was reduced in 1919 to approximately one-fifth day. The comparison is, however, somewhat modified by the greater inflation due to influenza in the latter part of 1918 than that due to the same cause in the early part of 1919. Perhaps the truest comparison is between the first six months of 1918 with the last six months of 1919, when the health conditions were normal in both cases.

The actual benefits of a medical department in preventing sickness and reducing lost time would of course appear more clearly if it were possible to compare the lost time through sickness by a firm *before* it had established health supervision and *after*. Naturally, however, it is difficult to secure reliable records as to the causes of lost time before some form of health supervision was in operation. While the figures given above do not, accordingly, do full justice to the results actually achieved by health supervision, they are indicative since they show the progress made in consecutive years in reducing sickness, as confidence in the plant dispensary, the plant doctor and the plant nurse grew, and experience increased.

Western Exhibitions

Association Receives Encouraging Letters Showing That Manufacturers are Becoming Interested

The Association drew the attention of Canadian manufacturers, in March last, to the excellent opportunities for the display of their products provided by the annual exhibitions which are being held this year in the month of July in Calgary, Edmonton, Saskatoon, Brandon, and Regina. The result has been that these exhibitions have been inundated with applications for space, and the accommodation for industrial exhibits has been taxed to the limit. The following are some extracts from letters received from different managers of these exhibitions:

"We have received this year more requests for space and inquiries *re* space from Eastern Canada than in any year since I have been connected with the exhibition, doubtless due to your circular letter and the article which was published in Industrial Canada. From present indications, our buildings will be taxed to give accommodation to all. We have under contemplation, however, an extension programme which will ultimately give us ample space for all departments."

"In this circular you state the facts in reference to Western exhibitions. As far as my observation goes, and I visit all of them, in my judgment there never was a more opportune time for Canadian manufacturers to get busy with a determination to supplant American manufactured goods. There is no question but that Canadian goods would be used if the people knew more about them, and could see them on exhibition. Speaking for all the exhibitions in the West, I can assure you that the manufacturers will receive every courtesy possible. We purpose erecting another display building for mercantile exhibits, and we will be able to accommodate an increased number."

"We appreciate very much your efforts on our behalf and assure you that we are getting results."

New Clothespin Plant

Miller & Gordon Manufacturing Co., Yarmouth, N.S., to Locate Industry at Carleton

Miller & Gordon Manufacturing Company, recently formed at Yarmouth, N.S., are proposing to establish a hardwood working plant at Carleton. Their plans call for a building 50x120, part two storeys and part three storeys, with an engine-house, 30x30 feet, and a battery of three 75-h.p boilers, each enclosed in a building, 50x45 feet. Power will be furnished by a 225-horse-power Laurie-Corliss engine. The manufacturing plant will be part concrete and part wood, the engine and boiler-houses to be built of fireproof building blocks. They expect to manufacture clothespins, dowels and other manufactured hardwood articles. Operations will commence some time next fall and they will employ about 100 hands. The plant will probably cost in the neighborhood of $40,000. W. E. Miller is president and treasurer; Winfield Gordon, vice-president, and Roy D. Miller, manager and secretary.

Increased Telegraph Tolls

Board of Railway Commissioners Authorize Telegraph Companies to Raise Rates

The Board of Railway Commissioners have now issued their General Order 297, which gives telegraph companies operating in Canada authority to file with them new tariffs, providing for increased tolls. Heretofore the charge for a ten word message has been 25c. in Eastern Canada. Under the Board's order, this territory will be split up into a number of zones. The charge for a single message of ten words between any two points in one zone shall be increased from 25 to 50c.; the charge for each additional word over the ten words, shall be increased from one to two cents.

The application of the telegraph companies has been before the Board for some time, and although the matter was heard at numerous public sittings, comparatively little objection was offered to the increases.

Maple Leaf Milling

Profits for 1919-1920 Were Only Slightly Under Those for the Previous Year

Profits of the Maple Leaf Milling Co. for the year ended March 31, 1920, were $917,409, as compared with $929,105 for the previous year. As common dividends paid during the year only amounted to $300,000 as compared with $600,000 in the previous year, a larger balance was carried forward to profit and loss, this amounting to $1,853,675, as against

FOR SALE BY TENDER

Factory Suitable for Paper or Pulp Mill or any other manufacturing purposes

IN THE SUPREME COURT OF ONTARIO.

In the matter of the J. McCarthy & Sons Company of Prescott, Limited.

And in the matter of the Winding Up Act.

Pursuant to the direction of the Local Master at Ottawa the following property is offered for sale by tender, namely: All and singular that certain parcel of land and premises situated in the Township of Augusta, in the County of Grenville, Province of Ontario, being composed of parts of the east half of lot number nine and of the west half of lot number eight, in the first concession of the said Township of Augusta, which lands may be described as follows:—Commencing at the centre line of said lot number nine, on the bank of the St. Lawrence River, in the said Township of Augusta, thence easterly along the bank of the said river to the mouth of the creek that empties into said river at or near the centre of lot number eight aforesaid, thence northerly along the centre line of said lot eight to the southern boundary of the Prescott-Brockville Highway, thence westerly along said southern boundary of said Highway to the said centre line of lot nine, thence southerly along said last mentioned centre line to the place of beginning, said lands comprising eleven acres more or less.

Upon said lands are erected the following buildings all in substantial repair, namely:—(1) one-storey brick storehouse, 26 x 123, with cellar and stone foundation; (2) two-storey frame warehouse, 37 x 100; (3) three-storey brick and stone malt house, 40 x 100; (4) brick and stone malt kiln, 32 x 32 x 30; (5) one-storey stone building, 22 x 56; (6) stone and brick engine house, 13 x 25; (7) stone and brick office vault, 7 x 7; (8) brick and stone building, 5 stories, 33 x 59, and 6 stories, 41 x 55; (9), two-storey stone and brick building, 24 x 24 x 25; (10) one-storey stone building with cellar, 20 x 50; (11) frame icehouse, 30 x 50; (12) stone dwelling with brick extension, two-stories, 31 x 57 containing 15 rooms and basement; (13) "L" shaped wharf, 24 x 82 and 13 x 107.

The main buildings are of first class construction and contain approximately 50,000 sq. ft. floor space, will carry almost any weight of machinery and are connected with the Hydro-Electric System for light and power.

This property is located in a large bay on the St. Lawrence River, one mile west of the Town of Prescott, Ontario, and opposite the City of Ogdensburg, New York State, at the foot of the Great Lakes navigation. It is 112 miles west of Montreal, 52 south of Ottawa and 221 east of Toronto. Any boat plying the said river can be accommodated at the wharf. In addition to shipping facilities by boat, there are also the Grand Trunk and Canadian Pacific Railways. The new Toronto-Montreal Highway forms the north boundary of the property. Large amount of electric power is available and coal can be brought either all rail or boat. The frontage of the property on the river is approximately one-quarter mile.

The buildings easily adapt themselves for manufacturing of any kind, elevator or pulp or paper mills, and the site would be ideal for a dry dock, and being at the foot of the Great Lakes navigation, will have an additional potential value on the completion of the new Welland Canal.

Included with the buildings are the contents of engine room comprising boiler, engine, steam pump and tools, and also all other machinery vats, shafting, belting, malt and grist mills and equipment on the premises.

An unlimited supply of pure crystal water can be obtained from two wells located in the buildings.

The above property will bear inspection and can be seen at any time on application to the Liquidator.

Tenders for the purchase of the said property will be received by the Liquidator up to noon of the 1st July, 1920. The highest or any tender not necessarily accepted.

Terms of sale, 10% on notice of acceptance of tender and the balance without interest in 30 days thereafter.

For further particulars apply to W. A. Cole, Ottawa, Ont., the Liquidator of the said Company, or to W. C. McCarthy, 53 Queen St., Ottawa, Ont., Solicitor for the Liquidator.

Dated at Ottawa, this 6th day of May, 1920.

JOHN BISHOP.
Local Master.

$1,568,545. A large reduction was made in inventory, which dropped from $4,749,459 to $2,687,813. Investments increased from $2,545,776 to $3,934,275. Bank advances declined from $4,676,487 to $3,432,500. After allowing for bank interest and preferred dividends, there was available $563,640, or 22.5 per cent. on common stock outstanding.

Canadian Cottons

Large Increase in Profits shown For the Year Ended March 31st last

After allowing for excess profits tax, manufacturing profits, rentals and interest on investments of Canadian Cottons, Limited, for the year ended March 31, amounted to $1,839,443. This compares with $1,563,103 in 1918-19, and $1,126,125 in 1917-18. After all deductions and allowances, including $400,000 for replacement reserve and a similar amount for depreciation, the balance available for application on the common shares was equivalent to 23.24 per cent. Gross sales for the twelve months aggregated $11,148,438, as compared with $10,828,326 in 1918-19. The year's surplus amounted to $454,585, bringing the total surplus at the credit of profit and loss up to $2,683,479.

New Feed Mill

Jas. Davidson & Co., Limited, Fort William, Will Erect New $25,000 Plant

A new feed plant is being erected at Fort William, Ont., by James Davidson & Company, Limited. It is costing in the neighborhood of $25,000 and will be ready for operating by about September 1. The mill will have a storage capacity of approximately 10,000 bushels. The company propose to do a general wholesale and retail flour, hay and feed business, including the grinding of all kinds of animal and poultry feeds. They will be in a position to cater to Eastern trade with anything in the feed or seed line that may be called for.

New Heading Mill

Canadian Cooperage Manufacturing Co., Limited, Smith's Falls, Start New Mill

A new heading mill adjoining their present plant at Smith's Falls, is being erected by the Canadian Cooperage Manufacturing Company, Limited, and will commence operations about the middle of the month. It is a one-line mill, with a capacity of 3,000 sets per day, and will give employment to about 25 men. The company started operations in Smith's Falls about nine years ago and have had a successful career. They are capitalized at $100,000. C. H. Easson is president; James Innes, vice-president and manager; W. M. Fleming, secretary-treasurer, and William Demarse, superintendent.

Build Rubber Boot Plant

Ames-Holden Rubber Boot Co., Limited, Will Locate Plant at Kitchener

Ames-Holden Rubber Boot Company, Limited, have recently been incorporated to manufacture and deal in rubber boots and shoes and all other things of which rubber forms a part. Property known as the Orphanage property, situated at the corner of King and Wilmot streets, Kitchener, has been secured, together with a large piece of adjacent ground from the Lang Tanning Company, Limited, on which it is

"A Greater Exposition Than Has Been"

CANADIAN NATIONAL EXHIBITION

TORONTO

AUG. 28——(INCLUSIVE)——SEPT. 11

The Annual World's Fair, where the Nation shows its best finished product of mine, field, factory and forest

1919 attendance 1,201,000 in thirteen days

Always striving for higher standards, the 1920 programme is designed to achieve new records in all departments

MACNAMARA INDUSTRIAL SITES

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Situated on Bathurst, Dupont and Davenport Road, Toronto, Ontario (Old Hillcrest Race Track), 4,000 feet frontage. Average size of lots, 80 feet by 220 feet. All lots with C. P. R. and C. N. R. privileges, Toronto and Niagara power. Three street car lines direct to property.

EXCLUSIVE AGENT:

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A "Sick" Manufacturing Plant

The advertiser is successful in ***Making Manufacturing Plants Pay.*** Is seeking a permanent position as General Manager or Works Manager with a worth-while Canadian concern willing to pay for results. Experienced in management of foundries, drop forging and metal working plants manufacturing a variety of products.

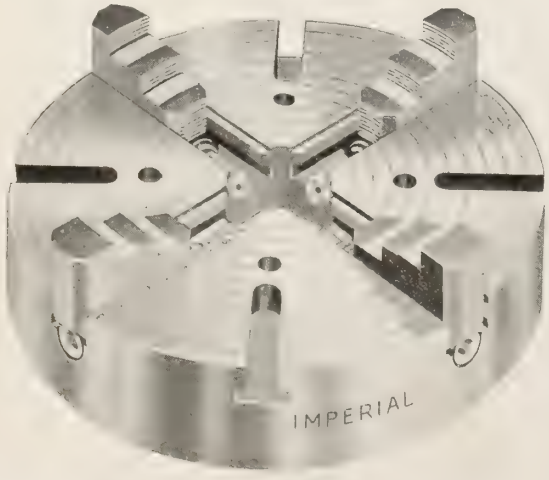
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IMPERIAL LATHE CHUCKS

Highly Endorsed by Canada's Best Manufa turers

Study long-wearing "Made-in-Canada" Chucks that are making good everywhere.

Specify them in your next order.



Ker & Goodwin Machinery Co. LIMITED
BRANTFORD, Ont.

proposed to erect a modern plant similar in construction to that of Ames-Holden Tire Company, Limited, for the manufacture of rubber boots and heavy rubbers for farmers, lumbermen, miners, fishermen, sportsmen and workmen in general. As the Ames-Holden Tire Company's factory is located directly across the street, many economies in operation can be effected, such as power, heat, fire protection, etc. Arrangements are being made to start manufacturing this summer, pending erection of the building, by installing equipment in the tire factory. This will later be removed to the new building.

Dominion Textile Co.

Annual Report Shows Smaller Profits but an Improved Financial Position

Manufacturing profits of the Dominion Textile Co. for the year ended March 31, 1920, were $1,701,244, as compared with $3,454,752 in the previous year. Net profits, which include interest on investments, amounted to $1,845,375. Deducting from this bond interest, rentals and preferred dividends, there remained $1,103,961, which is equal to 22.1 per cent. on the common stock. From this $400,000 was paid in common dividends, leaving $703,961 to be carried to profit and loss, bringing it up to $4,053,044. Commercial loans were increased by $3,828,363 to $4,160,420; inventories of raw cotton have advanced from $1,807,754 to $4,497,094. The purchase of Mount Royal Spinning Mills increased the value of plant and machinery by $2,643,835 to $15,046,460. Liquid assets have been increased from $7,899,040 to $11,921,782; liquid liabilities from $1,119,577 to $5,919,367.

P. Lyall & Sons

Earnings for Year Ending March 31, Show Reduction of Nearly a Million

The directors' report of P. Lyall & Sons Construction Co., Limited, expresses satisfaction with the year's results, when consideration is given to the trying and unsettled conditions which prevailed. Gross earnings, after deducting all charges, amounted to $377,734, this comparing with $1,314,582 for the year ended March 31, 1919. From this was deducted bond interest of $57,164, preferred dividends, $91,000, common dividends $140,000, sinking fund bond redemption $53,500, making a total of $541,664 and leaving a balance of $36,070 to be carried forward.

Reference is made briefly to the automobile engine with which the company had experimented. It is stated that the tests of experts did not offer sufficient encouragement to warrant the company undertaking its manufacture.

Canadian Converters

Further Gain is Reported in Net Earnings for the Fiscal Year Ended March 31, Last

Net earnings of the Canadian Converters, Limited, for the year ended March 31st amounted to $529,822, as compared with $257,324 in 1918-19. In fact there has been a regular increase from year to year. After necessary deductions, $221,995 remained for dividends or other distribution. This was equivalent to 12.8 per cent. on the capital stock. A surplus of $126,653 was carried forward. The liquid position of the company showed a correspondingly improved position, the net working capital having increased from $751,853 two years ago to $795,552.

The Province of Promise

ALBERTA has 87 per cent. of Canada's coal.

ALBERTA has immense clay deposits, the investigation of which is only beginning.

ALBERTA supplies natural gas for power, heat and light in three cities and many towns and villages.

ALBERTA has beds of tar sands extending 100 miles along the Athabasca River and containing 18.5 per cent. bitumen.

ALBERTA has two large beds of salt, 200 feet in thickness, the survey of which is now in progress.

ALBERTA has twenty-one billion feet of merchantable timber.

ALBERTA will this year see over half a million dollars spent in oil development.

ALBERTA has undeveloped water power to the extent of 433,120 horse power.

For information regarding industrial opportunities write :

The Alberta Industrial Development Association

400 Lougheed Building
Calgary, Alberta

Brigadier-General H. F. McDonald, C.M.G., D.S.O.
General Manager

Cafeteria Equipment



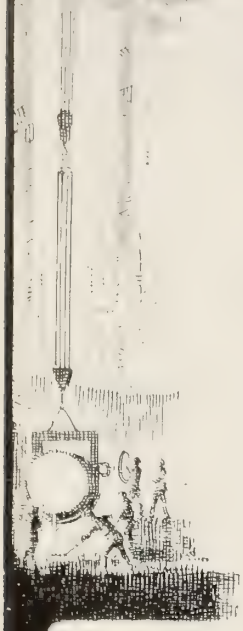
Cafeteria, Massey-Harris Co., Limited, Toronto

For Industrial Plants

We have installed complete Cafeteria equipment in many large Industrial Plants. The experience of our Designing Department is entirely at your service, either in an advisory capacity or for making a complete plan and an estimate of the cost of Cafeteria Equipment to meet your requirements.

JOHN HILLOCK & COMPANY, LIMITED

Office, Factory and Showroom - - - - - 154 George Street, Toronto



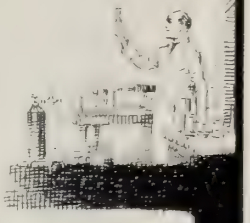
"MIGHTY OAKS FROM ————"

In 30 years the original, small analytical laboratory of Milton L. Hersey has developed until today the Milton L. Hersey Company, Limited is recognized as one of the foremost firms of Industrial Chemists and Consulting Engineers on the continent.

Our Commercial Laboratories are the largest and best equipped in Canada.

Our Men are practical, scientific engineers and chemists trained to produce results.

Our Experience covers every phase of manufacturing. We constantly analyze or test ingredients, materials and manufactured products; investigate factory processes, methods, practices. We install or check systems of foundry control and mine operation, make physical and chemical inspections, and give a complete engineering service, including expert advice on paving problems.



Inquiries are invited from interested parties

MILTON HERSEY COMPANY, LIMITED

Industrial Chemists, Engineers and Inspectors

MONTREAL AND WINNIPEG

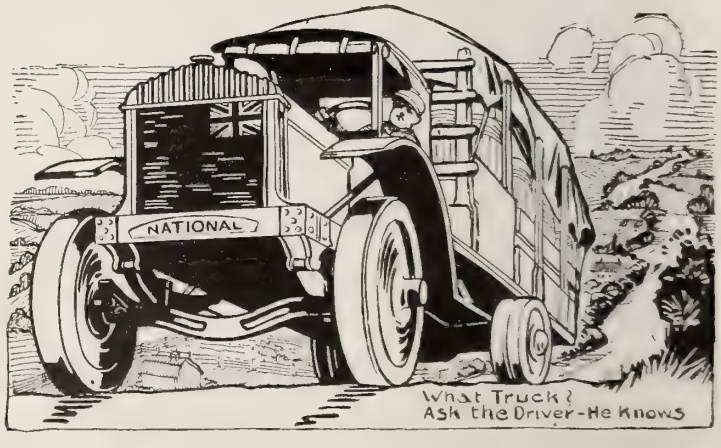
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A FEW NATIONAL USERS

Canadian Oil Co., Limited	30
J. M. Fortier, Montreal	21
City of Hamilton, Ont.	2
Dunlop Tire & Rubber Co., Limited	3
Dodge Manufacturing Co., Montreal	1
Whittall Can Co., Montreal	1
Hudson Bay Company, Calgary	1
Robinson's Dept. Store, Winnipeg	2
B.C. Government (Roads Dept.)	4
F. J. Major Co., Ottawa	2
Bell Telephone Co. of Canada	2
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See the nearest NATIONAL Dealer and write for catalogue showing specifications



Repeat orders from users of National Trucks are due to the fact that the truck has met their expectations in every particular. It has stood the test and proven to be dependable and economical to operate.

Four Sizes—1, 1½, 2 and 3 tons

Built in Canada by

The National Steel Car Corporation

HAMILTON - CANADA

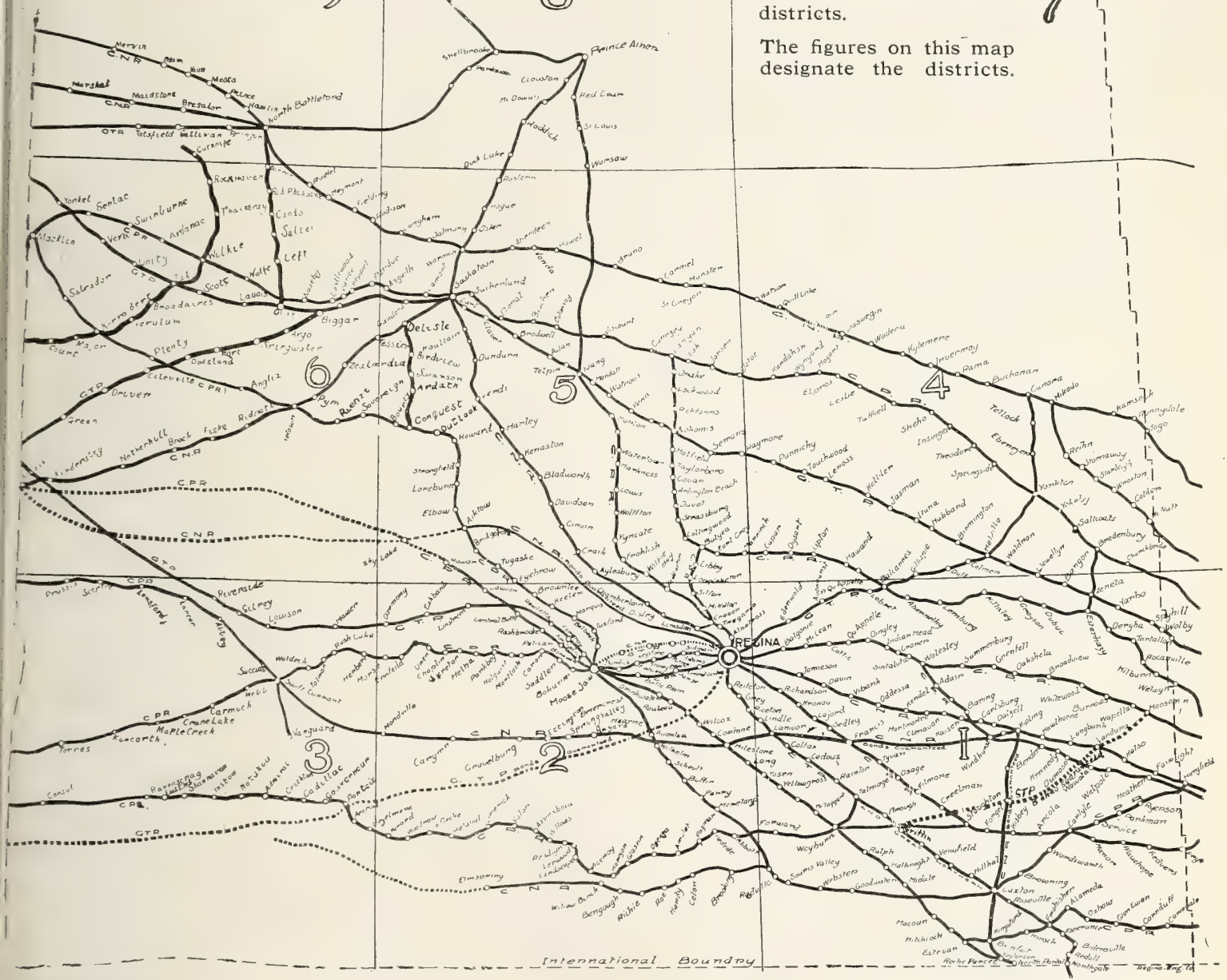
REGINA
Saskatchewan
Canada

1920

Regina serves 2,255 miles of Railway and 250 towns and villages. Population of District 466,666.

In districts Nos. 1, 2, 4 and 5 are two-thirds of the population of the Province, and over two-thirds of the grain of the Province is raised in these four districts. Of the 1,870,123 head of stock in the Province, three-quarters of the total are raised in the above four districts.

The figures on this map designate the districts.



REGINA, the capital city of Saskatchewan is situated on the main line of the Canadian Pacific Railway, Grand Trunk Pacific Railway and Canadian National Railway. It is the principal city between Winnipeg and Calgary, lying 357 miles west of Winnipeg and 483 miles east of Calgary.

REGINA is the largest distributing centre of Western Canada and, as a distributor of farm implements, the greatest in the world, business in this line in one year having reached a total of over $25,000,000.

REGINA is the distributing centre, the commercial centre and the educational centre of this part of Western Canada. Building construction already arranged for, in 1920, amounts to $4,500,000. Every lot in the wholesale area is served with railway tracks; a large portion of the area is still available for building purposes and may be obtained from the City.

For further information apply to L. T. McDONALD, Board of Trade, Regina or Commissioner L. A. THORNTON, City Hall, Regina



Here is your future Superintendent.

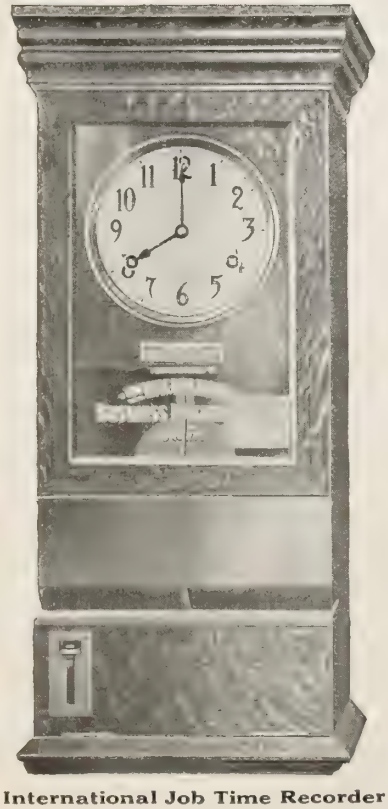
Here is the Machine that helps you find Him.

HE'S one of your producers! The "International" Job Time Recorder finds him for you. There are other good workers, and there are also non-producers.

¶ It is production you are after and this International Job Time Recorder will show you exactly where you are getting it. Automatically printed on each Job Card is the exact starting and stopping time on each and every operation.

¶ The International unerringly records the points of high and excessive production costs through every stage of manufacture—indicates the inefficient workmen, the non-producers and helps you clear out the "deadwood." Best of all, it ***shows the men who are producing*** and develops them by stirring up lively competition. You can ***watch them grow,*** and out of this group who take an interest in your business you'll pick your "Job Bosses" and, when the time comes, your Assistant Foremen.

Why keep your modern machinery hitched to an ancient time and cost recording system when an International Job Recorder will help you "jump" production records to the peak?



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There's an International for every business. Let us send you our literature.

International Business Machines Company, Limited

Time Recorder Division

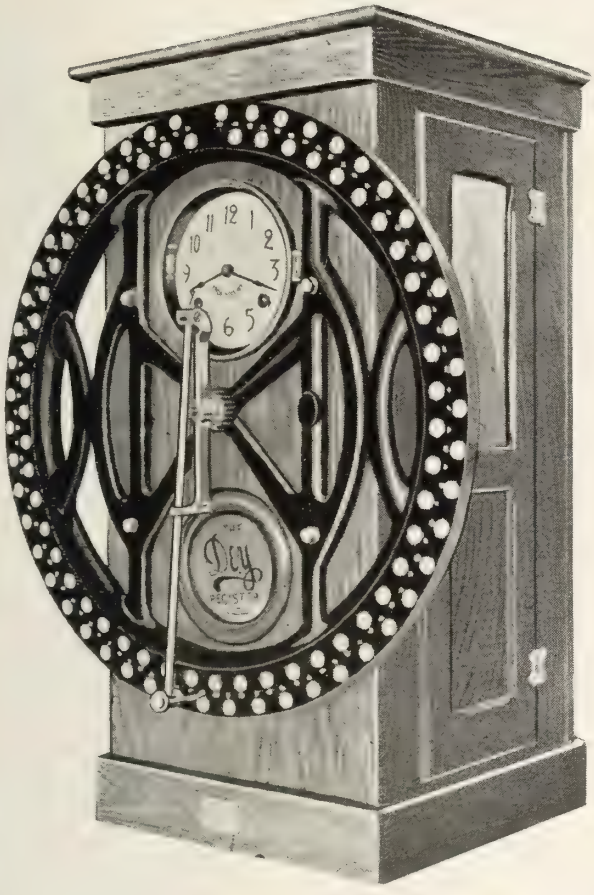
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Head Office and Factory: Campbell Ave., Toronto, Ont.

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(Also makers of Hollerith Electric Tabulators and Dayton Computing Scales)

LET THE RED RECORDS SOLVE YOUR PROBLEM OF TIME-KEEPING



Double Drum Time Recorder

THE flail and the spinning wheel have passed long since into the limbo of unused things. Why cling to the old-fashioned time-book? It served its purpose, too, at one time, in its own dog-eared, inexact and irritating way.

Mistakes and vexation are avoidable.

AUTOMATIC DIAL TIME RECORDERS MEET EVERY NEED, EMPLOYES WRITE THEIR OWN PAY SLIPS

Every feature of the machine is automatic. Wind it once a week. Workmen press a lever, a bell rings and their time is recorded legibly and indisputably.

THE DOUBLE DRUM DIAL RECORDER

IS ONE OF THE SIMPLEST AND MOST CONVENIENT TYPES MADE

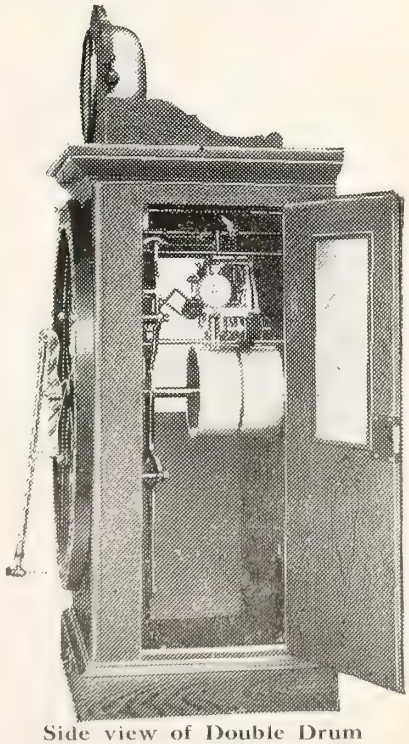
It meets the requirements of plants in which the labour element is shifting. No cards are used. The "DOUBLE DRUM" feature makes possible the removal of yesterday's record without disturbing to-day's and without interruption of the machine's work.

It will automatically change the columns from "in" to "out" and from the first drum to the second drum and show all irregular time "IN LATE," "OUT EARLY" and "OVERTIME" in red figures. All regular time is in green. All employes' registrations are in numerical order.

The Time records of the previous day are totalled in their respective columns and only show the outer column with the total number of hours worked that day. Back records may be seen readily by turning back the slips.

The RED RECORDS indicate "IN LATE" or "OUT EARLY." In making up your payroll, look at the reds only—the others are full time. The red records eliminate eighty per cent. of the clerical work on your payroll.

The "DOUBLE DRUM" Recorder is made in three sizes with capacity for fifty, one hundred or one hundred and fifty employes. They are saving the time and worry of cashiers in many of Canada's large plants. They promote punctuality and honesty as well as eliminate irritation and friction over payroll records.



Side view of Double Drum Time Recorder

International Business Machines Co., Limited

FRANK E. MUTTON, Vice-President and General Manager

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MONTREAL, 1 and 3 Notre Dame St. W.
OTTAWA, 188 Queen St.
TORONTO, 415½ Yonge St.
HAMILTON, 175 James St. N.
WALKERVILLE, ONT., 44 Lincoln Rd.
WINNIPEG, 227 McDermott Ave.
SASKATOON, 254, 3rd Ave.
CALGARY, 127, 6th Ave.
EDMONTON, 10118 102nd St.
VANCOUVER, 110 Water St.

(Also manufacturers of International Time Recorders and Hollerith Electric Tabulators)

Your Foreign Trade

We are in close connection with large and reputable English and Continental importers and exporters and are in a position to place your goods on the foreign market to very good advantage.

We also handle orders for goods of foreign manufacture, and guarantee prompt service.

Your inquiries shall be given personal attention.

FEILDE & CO., LIMITED
16 McGill College Ave., Montreal

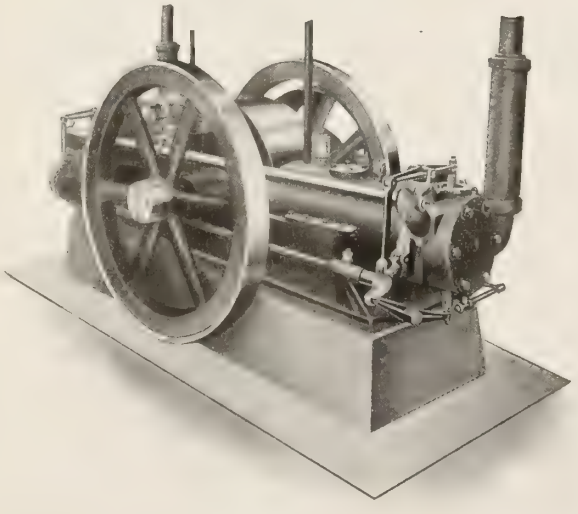
CANADA-HOLLAND

GEBRS. BOER
(Afd. Algem. Handelszaken)
Glashaven 27
Rotterdam

SELLING AND BUYING AGENTS

Cable Address: Boer Marmer, Rotterdam
A.B.C. Code, 5th and 6th Ed.
Bankers: R. Mees & Zoonen, Rotterdam

POWER



We manufacture Engines from 2 to 50 H.P. Single and Double Opposed Cylinders—Operate on Gas, Kerosene, Naphtha, etc.

The Highest Grade on the Market—Thousands in operation.

Tanks and Towers for Sprinklers, etc.

Concrete Mixers, Kerosene Tractors, etc.

Goold, Shapley and Muir Company, Limited
Brantford Portage La Prairie Regina Calgary

Steamship Sailings

Proposed Sailings from Montreal and Vancouver to Various Ports of the World

FROM MONTREAL

To Liverpool

Canada	White Star-Dominion Line	Ab't June 12
*Victorian	C.P.O.S. Line	Ab't June 9

*Sails from Quebec.

To St. Nazaire (France)

Alston	Marine Navigation, Ltd	Ab't June 15

To Gottenburg (Sweden), Malmo and Norrkoping

A Steamer	Swedish Amer. Line (Furness Withy, Agents)	Ab't July 10

To Antwerp

Western Plain	Red Star Line	Ab't June 16

To Leith

Cairnvalona	Thomson Line	Ab't June 13

To Buenos Aires, Montevideo, Rosario (South America)

Hottensius	Houston Line	Ab't June 30

To Avonmouth Dock (Bristol)

Lowlands	Cunard Line	Ab't June 10

To Hull

Rossano	Furness Line	Ab't June 10

To Belfast

Dunaff Head	Head Line	Ab't June 10

To Dublin

Fanad Head	Head Line	Ab't June 10

To Rotterdam

Lord Antrim	Head Line	Ab't June 12

To Rio De Janeiro (Brazil), Montevideo and Buenos Aires

Canadian Pioneer	Can. Govt. Mer. Marine, Ltd.	Ab't June 15

To Kingston (Jamaica), and Havana (Cuba)

Canadian Gunner	Can. Govt. Mer. Marine, Ltd.	Ab't June 22

FROM VANCOUVER

To Kobe, Yokohama, Nagasaki, Japan.

‡Protesilaus	Blue Funnel Line	Middle June
Empress of Japan	C.P.O.S. Limited	June 23
Yomei Maru	Trans. Oceanic Company	Late June
Empress of Asia	C.P.O.S. Limited	July 1
Monteagle	C.P.O.S. Limited	July 10
Tyndareus	Blue Funnel Line	Middle July
Mattawa	C.P.O.S. Limited	July 20
Empress of Russia	C.P.O.S. Limited	July 29

See Note 1.

To Shanghai, Hongkong, China

†Protesilaus	Blue Funnel Line	Middle June
Empress of Japan	C.P.O.S. Limited	June 23
M. S. Dollar	Canadian Robert Dollar Co.	June 25
Empress of Asia	C.P.O.S. Limited	July 1
Monteagle	C.P.O.S. Limited	July 10
†Tyndareus	Blue Funnel	Middle July
Mattawa	C.P.O.S. Limited	July 20

* Calls Moji instead of Nagasaki.
† Do not call at Shanghai.
‡ Do not call at Nagasaki.
See Note 2.

To Manila, Philipine Islands

Protesilaus	Blue Funnel Line	Middle June
M. S. Dollar	Canadian Robert Dollar Co.	June 25
S.S.Empress of Russia	C.P.O.S. Limited	July 29
Melville Dollar	Canadian Robert Dollar Co.	Late July

To Singapore, Strait Settlements

M. S. Dollar	Canadian Robert Dollar Co.	June 25
Mattawa	C.P.O.S. Limited	June 25

To Australian and New Zealand Ports

Waihemo	Canadian Australian Line	June 17
Makura	Canadian Australian Line	Late June
A Cargo Steamer	Canadian Australian Line	Late June
Canadian Exporter	Can. Govt. Mer. Marine Ltd.	July 1

See Note 4.

Note 1. Handling freight for all inland points.
Note 2. Handling freight for all inland points also ports beyond Hongkong.
Note 4. Handling freight for all ports and inland points in Australia and New Zealand.

THE MERCHANTS BANK OF CANADA

Statement of Liabilities and Assets at 30th April, 1920

LIABILITIES

1. To the Shareholders	1920	1919
Capital Stock, paid in	$ 8,400,000.00	$ 7,000,000.00
Rest or Reserve Fund	8,400,000.00	7,000,000.00
Dividends declared and unpaid	338,159.22	194,194.00
Balance of Profits as per Profit and Loss Account submitted herewith	260,774.98	574,043.32
	$ 17,398,934.20	$ 14,768,237.32
2. To the Public		
Notes of the Bank in Circulation	14,791,027.00	13,316,033.00
Deposits not bearing interest	45,368,876.69	43,552,214.61
Deposits bearing interest (including interest accrued to date of Statement)	114,132,175.79	91,904,993.37
Balances due to other Banks in Canada	2,747,402.86	2,614,696.64
Balances due to Banks and Banking Correspondents in the United Kingdom and foreign countries	831,997.39	105,076.96
Bills payable	.....	.....
Acceptances under Letters of Credit	2,117,441.21	464,153.05
Liabilities not included in the foregoing	.....	.....
	$197,387,855.14	$166,725,404.95

ASSETS

Current Coin		$ 4,193,117.50	$ 4,946,946.33
Deposit in the Central Gold Reserves		7,500,000.00	7,000,000.00
Dominion Notes		8,407,003.25	8,405,602.50
Notes of other Banks		1,170,482.00	985,044.00
Cheques on other Banks		11,093,195.77	6,082,616.99
Balances due by other Banks in Canada		9,400.50	3,215.80
Balances due by Banks and Banking Correspondents in the United Kingdom		445,034.79	123,496.50
Balances due by Banks and Banking Correspondents elsewhere than in Canada and the United Kingdom		1,561,157.87	1,903,040.10
Dominion and Provincial Government Securities, not exceeding market value		7,893,229.90	6,005,573.65
Railway and other Bonds, Debentures and Stocks, not exceeding market value		4,507,688.10	4,119,705.32
Canadian Municipal Securities and British, Foreign and Colonial Public Securities other than Canadian		13,239,204.59	15,238,399.32
Call Loans in Canada on Bonds, Debentures and Stocks		6,471,494.31	5,134,690.71
Call Loans elsewhere than in Canada		6,206,537.78	2,801,857.72
		$ 72,697,546.36	$ 62,750,188.94
Current Loans and Discounts in Canada (less Rebate of Interest)	$113,198,913.90		
Loans to Cities, Towns, Municipalities and School Districts	3,587,491.69		
		116,786,405.59	95,874,426.04
Current Loans and Discounts elsewhere than in Canada (less Rebate of Interest)		1,117,268.51	332,918.12
Liabilities of Customers under Letters of Credit as per contra		2,117,441.21	464,153.05
Real Estate other than bank premises		604,325.33	782,326.64
Overdue Debts, estimated loss provided for		352,737.25	386,973.56
Bank premises at not more than cost (less amounts written off)		*2,576,630.21	5,253,269.48
Deposit with the Minister for the purposes of the Circulation Fund		377,000.00	366,000.00
Other Assets not included in the foregoing		758,500.68	515,149.12
		$197,387,855.14	$166,725,404.95

* After crediting amount received in respect of Premises transferred to The Merchants Realty Corporation, Limited.

H. MONTAGU ALLAN,
President.

D. C. MACAROW,
General Manager.

Report of the Auditors to the Shareholders of The Merchants Bank of Canada

In accordance with the provisions of sub-sections 19 and 20 of section 56 of the Bank Act, we report to the shareholders as follows:—

We have examined the above Balance Sheet with the Books of Account and other records at the Chief Office of the Bank and with the signed returns from the Branches and Agencies and have checked the cash and verified the securities of the Bank at the Chief Office against the entries in regard thereto in the books of the Bank at 30th April, 1920, an dat a different time during the year and found them to agree with such entries. We also attended at some of the Branches during the year and checked the cash and verified the securities held at the dates of our attendances and found them to agree with the entries in regard thereto in the books of the Bank.

We have obtained all the information and explanations we have required. In our opinion, the transactions of the Bank which have come under our notice have been within the powers of the Bank, and the above Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Bank's affairs, according to the best of our information and the explanations given to us, and as shown by the books of the Bank.

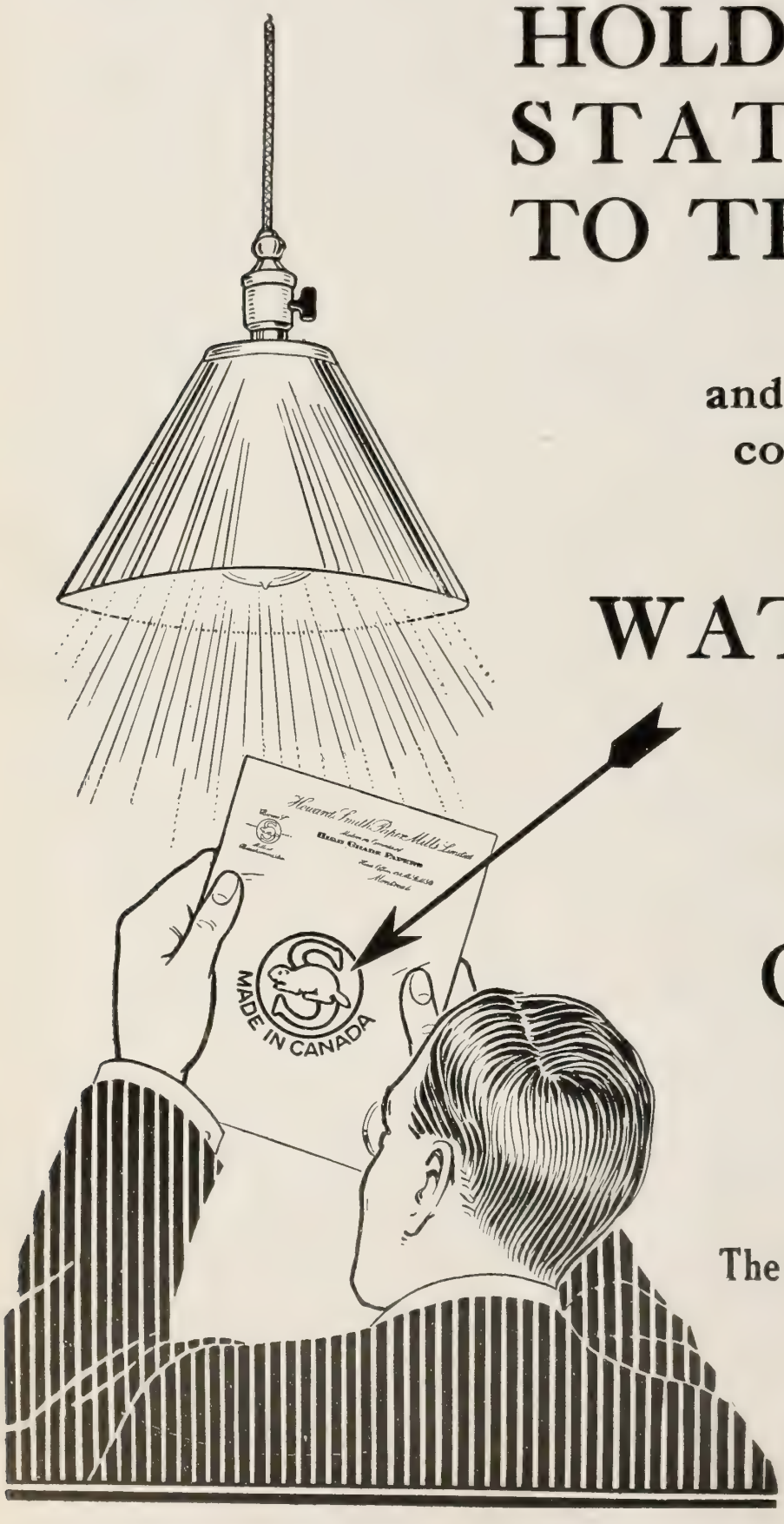
VIVIAN HARCOURT, }
GORDON TANSLEY, } Auditors.
(Of the firm of Deloitte, Plender, Griffiths & Co.)

Montreal, 25th May, 1920.

HOLD UP YOUR STATIONERY TO THE LIGHT

and see that it contains this

WATERMARK



It is your guarantee for

QUALITY

-Made-in-Canada-

BY

The Howard Smith Paper Mills
LIMITED

138 McGill St., MONTREAL

MILLS AT
BEAUHARNOIS, QUE. and
CRABTREE MILLS, QUE.

OFFICE AND FINANCE

Keeping an Accurate Record of Stock

By W. R. PATERSON

DESPITE the fact that materials in all lines of buisness are so hard to procure and that it is absolutely necessary to keep an efficient stock record, there are still quite a large number of executives who pay very little attention to this all-important part of their business.

They have not as yet realized that the only real value to-day is merchandise. Money is simply an instrument to facilitate the exchange of merchandise, and it is hard indeed to understand why any business man, who usually employs such careful methods for the protection of actual cash and cash values in the shape of book records, gives such little attention to the protection of his stock.

Both are tangible assets. The stock on the shelves is just as valuable as cash in the till. And to-day it is even more so in some cases, because the stock on hand could not be replaced for some considerable length of time and at a greatly increased price.

The stockkeeper, who is the custodian of the company's property and is accountable for its disposition, is in exactly the same position as a cashier or comptroller, who is responsible for the money entrusted to his custody. Logically, then, an intelligently planned and accurate system for keeping track of stock is as important to successful business operation as the indispensable system for recording book and cash assets.



A Stock Recording System

A proper system for handling and recording stock calls for just as close recording work on stock records as it does for actual money. The saving effected in this manner in a year will more than pay for the cost entailed in installing and keeping up a stock record system

In most factories there are generally two stock departments—the raw stock department and the finished stock department. Both of these departments must, of course, operate a stock record for their respective stock. The raw stock department furnishes materials to the various manufacturing departments on receipt of requisitions issued by the various foremen. At the close of the day these requisitions are posted off the raw stock inventory card.

In the finished stock department manufactured products are shipped on order from the office to customers, and are promptly checked off the inventory. The inventory records are easily kept by the stockkeeper, although in some cases it is more advantageous to control them from the office. In the rush to get the goods out there is the possibility of the shipper forgetting to subtract the shipments from the stock record.

Efficient stock records are essential to every manufacturing concern. No factory can afford to jeopardize production through lack of this "barometer" that gives timely warning of the shrinkage of materials necessary to the conduct of continuous manufacturing operations. With effective regulation being attached to the keeping and requisitioning of all supplies, the physical inventory should at all times agree with the card record. Even though the stock department is conducted efficiently, regardless of the accurate day-to-day control of materials which the stock record assures, many firms make it a rule to check up their inventories at stated periods. This practice is a final check, and is to be commended.

Guesswork has no place in any production activity of the present day. It is no longer satisfying to the factory general superintendent to receive the report that "the coal pile is in fair shape." He wants to know how many days' working energy is in the pile, measured by actual weight.

Coal, lumber, steel and paper—every raw product upon which the factory is dependent must be accurately recorded. The stockkeeper must make sure that none of the raw products gets down to the danger point that threatens hampered production—but perpetual stock record masters the problem for all.

Summarized briefly, the reasons for, and the advantages resulting from, an efficient stock record are:

(1) Prevention of use of material without authorization or without being accounted for.

(2) Prevention of unnecessary investment in material, by setting properly calculated maximum and minimum amounts for each item of stock.

BANK OF MONTREAL

Established over 100 Years

Capital Paid Up - - $20,000,000
Rest - - - $20,000,000
Undivided Profits, $2,090,440
Total Assets - $571,150,138

BOARD OF DIRECTORS:

Sir Vincent Meredith, Bart., President
Sir Charles Gordon, G.B.E., Vice-President

R. B. Angus, Esq.	Lord Shaughnessy, K.C.V.O.
C. R. Hosmer, Esq.	H. R. Drummond, Esq.
D. Forbes Angus, Esq.	Wm. McMaster, Esq.
Lt.-Col. Molson, C.M.G., M.C.	Harold Kennedy, Esq.
H. W. Beauclerk, Esq.	G. B. Fraser, Esq.
Col. Henry Cockshutt	J. H. Ashdown, Esq.

E. W. Beatty, Esq., K.C.

Head Office: MONTREAL

Sir Frederick Williams-Taylor, General Manager

Branches and Agencies — Throughout Canada and Newfoundland
At London, England, and at Mexico City
In Paris, Bank of Montreal (France)
In the United States - New York, Chicago, Spokane. San Francisco - British American Bank (owned and controlled by the Bank of Montreal).
West Indies, British Guiana and West Africa—The Colonial Bank (in which an interest is owned by the Bank of Montreal)

A GENERAL BANKING BUSINESS TRANSACTED

ESTABLISHED 1875

IMPERIAL BANK
· OF CANADA ·

CAPITAL PAID UP $7,000,000 RESERVE FUND $7,500,000

PELEG HOWLAND, President

The Bank offers a service of the highest order to Canadian manufacturers because of its 180 Branches located in important industrial and agricultural centres throughout Canada.

COLLECTIONS made at all points in Canada and in foreign centres.

DRAFTS—Money Orders and Letters of Credit issued, available throughout the world.

EXCHANGE—Domestic and Foreign Exchange bought and sold.

SAVINGS received at all Branches—interest credited half yearly at current rate.

Accounts of Merchants and Manufacturers solicited.

HEAD OFFICE - TORONTO

(3) Elimination of errors in promising delivery of goods not in stock.

(4) Proper identification and proof of the proper articles being shipped.

(5) A daily record of stock after the shipments of each day have been made—properly called a perpetual inventory.

(6) Maintenance of a perpetual inventory, which is kept checked up against the controlling stock, and which will give tangible proof of the amount of stock on hand when settling insurance claims.

(7) A clear indication of how and when every item of stock is used.

(8) Fixes the responsibility and checks the efficiency of the stockkeeper.

Bank of Montreal

Half-yearly Report Shows Large Increase in Current Loans to Manufacturers

The half-yearly statement of the Bank of Montreal issued last month reveals a condition that will give confidence to the business men of the country. Just now the world is passing through a particularly trying period, and any means by which basic conditions may be gauged is sure to be carefully examined. The Bank of Montreal statement is one of the best of these gauges.

As compared with a year ago there is a marked expansion in all departments and as a result total assets now stand at $571,150,138, against $489,271,197 a year ago. Of the total assets, liquid assets amount to $302,821,821, against $293,980,708 last year, while total current loans and loans to cities, etc., have gained to $253,637,259, compared with $183,668,838, an increase of approximately $70,000,000.

Both classes of deposits have shown steady advances during the year and deposits not bearing interest now stand at $157,790,000, against $124,736,000 a year ago, while deposits bearing interest have now reached a total of $312,317,174, up from $268,167,111. This represents a gain in total deposits for the year of approximately $77,000,000.

The profit and loss account shows a slight gain, as compared with the corresponding period in the previous year. This is probably due to the very much larger business the bank is now handling. Net profits for the six months to April 30th amounted to $1,802,585, as compared with $1,751,237 in the corresponding period last year. After the payment of dividends and making reservation for bank premises and war tax, the balance carried forward totalled $2,090,440, against $1,661,614 at the end of April a year ago.

Dominion Steel Corporation

Considerable Reduction in Profits for 1919-1920, But Financial Position Otherwise Strong

Income of the Dominion Steel Corporation for the year ended March 31, 1920, including interest on investments and surplus funds, after deducting all manufacturing, selling and administrative expenses, but before charging provision for sinking funds, depreciation and interest, amounted to $5,532,529, as compared with $8,768,054 in 1918-19 and $11,930,112 in 1917-18. Depreciation, sinking fund, renewals, etc., took $1,266,856, and interest on bonds and debentures $1,004,060, leaving net income of $3,261,613, as against $6,450,468 the previous year. After paying preferred dividends, a balance equivalent to 6.15 per cent. on common stock remained. The surplus for the year was $251,984, compared with $3,705,095 in 1918-19.

Total assets rose from $95,910,612 to $102,645,205. Current assets were up from $20,258,469 to $22,053,566. Current liabili-

ties increased from $5,632,821 to $9,600,837. Surplus current assets or net working capital showed a decrease from $14,625,648 to $12,452,729.

The statement says: "On account of trade conditions, operation of the Steel Company's works was greatly restricted during the months of August, September, October and November, and in consequence, the year's output of steel was correspondingly reduced. During the last quarter of the fiscal year operations were gradually increased, and are now upon a more satisfactory basis. It will be noted that a new item has been added to the list of materials produced, and that steel plates are now being made in quantities."

Merchants Bank

Remarkable Year of Growth With Large Increase in Assets is Reported By This Bank

The annual statement of the Merchants Bank of Canada, for the year ending April 30th, shows a remarkable increase both in the volume of business and in the strength and character of the assets, as well as in the profits derived by the shareholders of the bank.

The total amount of assets is now in excess of 197 million dollars, being an increase of nearly 31 million dollars for the year. About $2,800,000 of this increase is not accompanied by any increase of liabilities to the public, being due to the issue of $1,400,000 of capital stock, now fully paid up, and to the increase of the Rest Fund by $700,000 of premium on the new stock, and $700,000 out of profits. The chief cause of the increase in the volume of business is the growth of deposits which are now over 163 million dollars, and have increased during the year almost $25,000,000.

Against its total public liabilities of just under 180 million dollars, the Bank holds quick assets amounting to over seventy-two and a half million dollars, or a ratio of nearly 40.81 per cent.

In spite of the strength of its liquid position, the Bank is doing an immense amount of work for the assistance of current business in Canada, as is shown in the current loans and discounts in the Dominion, which now total $113,198,913.

Net profits for the year were the greatest in the history of the Bank, amounting to $1,686,156, an increase of $300,000 over the previous year. A bonus of 1 per cent. was added to the regular 12 per cent. dividend, so that the total distribution to the shareholders amounted to $1,068,286, while $700,000 was added to the Rest Fund, and $100,000 was written off Premises Account, the balance carried forward being $260,774.

Standard Chemical Co.

Profits in 1919 Were Much Reduced But Financial Position is Stronger

Gross profits of the Standard Chemical Co., Limited, for the year 1919 were $118,607, to which was added the sum of $200,000 derived from an inventory reserve fund previously provided out of profits. From this total $150,000 was charged to depreciation; $86,927 paid on interest; $60,211 for maintenance and improvements, leaving a balance of $21,468 to be carried to surplus account, which now amounts to $305,247, as against $311,577 at the end of the previous year.

Referring to the condition of the industry, L. M. Wood, chairman of the board, states that following the war the wood distillation industry became badly demoralized, and plants were shut down during the spring and summer months to about 30 per cent. of normal capacity. The company emerged from this period with greatly reduced liabilities and with very little loss.

BUSINESS LOANS

This Bank is at all times prepared to assist legitimate business enterprises requiring banking accommodation, either by way of secured loans or the discount of approved trade paper.

THE CANADIAN BANK OF COMMERCE

PAID-UP CAPITAL - - - $15,000,000
RESERVE FUND - - - $15,000,000

87A

The Merchants Bank of Canada

Head Office, MONTREAL Established 1864

Paid-up Capital - - - - - $ 8,400,000
Reserve Fund and Undivided Profits - - 8,660,774
Total Deposits (April 30, 1920) - - - - 163,000,000
Total Assets (April 30, 1920) - - - - 197,000,000

President: Sir H. Montagu Allan, C.V.O.
Vice-President: K. W. Blackwell
General Manager: D. C. Macarow
Supt. of Branches and Chief Inspector: T. E. Merrett

AN ALLIANCE FOR LIFE

Many of the large Corporations and Business houses who bank exclusively with this institution have done so since their beginning. Their banking connection is for life—yet the only bonds that bind them to this bank are the ties of service, progressiveness, promptness and sound advice.

391 Branches in Canada Extending from the Atlantic to the Pacific

Better Results from Business Letters

¶ Advertising managers and sales managers are striving continually for better letters—letters that have the "punch" or the "pull" that gets results. The most effective letter is handicapped before it is read if it is enclosed in an envelope or written on a paper that makes an unfavorable impression. Good paper in your stationery commands attention and respect. It instils a confidence that compels action.

THE FINEST BOND PAPER MADE IN CANADA IS

SUPERFINE LINEN RECORD

¶ If not already using it—ask your printer or lithographer about it—he knows it and will recommend it. Let us send you examples of printing and lithographing work produced on Superfine Linen Record.

MADE IN WHITE, AZURE AND BUFF

The Rolland Paper Co., Limited

HIGH-GRADE PAPER MAKERS

MONTREAL, P.Q.

Mills at
St. Jerome, P.Q., and Mont Rolland, P.Q.

Superfine Linen Record

Grand Prix, Paris, 1900
Gold Medal, Chicago, 1893
Gold Medal, Antwerp, 1883
(Other similar awards)

Canada's Greatest Bond and Ledger Paper

CHARLES F. DAWSON, LIMITED

Wholesale and Manufacturing Stationers

MONTREAL

Bookbinding Printing Ruling
Embossing Engraving Lithographing

Manufacturers in every branch of the industry
Carry a large stock of every office requisite

WE OFFER

Accurate, intelligent attention — Cumulative experience of ninety years
Prompt careful deliveries — Fair prices — Satisfaction

On account of the service offered, we number among our friends most of the Governments, Federal and Provincial—Municipalities, Banks, Transportation Companies, Corporations, Professional Firms, Colleges, Schools, etc.

If you have not already done so—why not open a ledger account with us. You will be surprised at the change.

P.S.—Catalogues and advertising literature yours for the asking

Ontario Smelters and Refiners

Offering of $250,000 First Mortgage Gold Bonds Being Made to Finance Enlargement

An offering of $250,000 seven per cent. first mortgage gold bonds, maturing serially from 1925 to 1940, is being made by Tanner, Gates & Co., Toronto, for the Ontario Smelters & Refiners, Limited. This company have recently taken over the Standard Smelting & Refining Co., formerly the North Bay and Chippawa and the Metals Chemical Co., of Welland, Ont. The proceeds from the sale of the bonds are to be used for the purpose of enlarging the company's manufacturing plant, additions to the smelter and erection of new buildings. The bonds are offered at par and accrued interest, with a 25 per cent. bonus of common stock.

Dominion Loose Leaf

Ottawa Company Issue $150,000 Eight Per Cent. Cumulative Participating Preferred Stock

An offering of $150,000 eight per cent. cumulative participating preferred stock of the Dominion Loose Leaf Co., Limited, Ottawa, has recently been made by Housser, Wood & Co., Toronto. The stock is offered at 100 and accrued dividends. The company's business was established in 1910 and has enjoyed rapid growth. A new building is now under erection which will be occupied within the next eight months. The company manufacture a complete line of loose leaf, card index and vertical filing system. There are no bonds outstanding and only $35,600 of $350,000 authorized common stock has been issued.

Imperial Bank

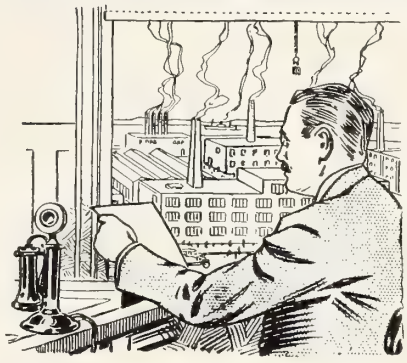
Substantial Appreciation in Profits, Commercial Loans and in Amount Carried Forward

There are two fixed items in the financial statement of a chartered bank which, in the main, reflect the relationship of the institution to the public. The one is the deposit account, which in a measure reflects the confidence of the public; the other is commercial loans, which reflects the measure of the bank's connection with the business interests of the country. In both these respects the financial statement of the Imperial Bank of Canada for the fiscal year ending April 30th, as submitted to the shareholders at their annual meeting in Toronto on May 26th, is a matter of satisfaction.

Deposits increased by no less than $14,585,983, or 17.53 per cent. The total on April 30th stood at $97,784,217, as compared with $83,198,234 on the corresponding date in 1919. Savings deposits at $72,676,679, showed an increase over the previous year of $10,964,535, or 18 per cent., while demand or non-interest-bearing deposits increased by $3,621,448.

Commercial loans stood at $60,452,943, as compared with $48,544,711 a year ago. An increase of $11,908,232, or 24.53 per cent., within the past twelve months, is indicative of the support which the Imperial Bank is giving to legitimate Canadian enterprises.

The profits for the year amounted to $1,379,318, as compared with $1,247,516, an increase of $131,802. In consequence of this excellent showing, the shareholders receive a bonus of one per cent. in addition to the usual dividend of 12 per cent. That this bonus was warranted is evident from the fact that, after allowances for pension and guarantee funds, contributions to repatriation campaign, and the payment of Dominion Government taxes, amounting to $125,000, as against $70,000 the previous year, the balance of account carried forward was $1,062 278.



INDUSTRY

WE offer every legitimate financial facility to growing manufacturers. We are prepared to make advances against approved trade paper. The collection of drafts receives special attention. Sound industries can obtain necessary backing for development. Our practical advisory assistance can be an all-important factor in the success of any industry.

Resources exceed $174,000,000

UNION BANK OF CANADA

THE ROYAL BANK OF CANADA

Capital Paid Up	$17,000,000
Reserve and Undivided Profits	18,000,000
Total Assets Over	500,000,000

HEAD OFFICE - MONTREAL

BOARD OF DIRECTORS:

Sir Herbert S. HOLT, Pres.	E. L. PEASE, Vice-Pres.
Jas. Redmond	Sir Mortimer B. Davis
G. R. Crowe	G. H. Duggan
D. K. Elliott	C. C. Blackadar
Hon. W. H. Thorne	John T. Ross
Hugh Paton	R. MacD. Paterson
A. J. Brown, K.C.	W. H. McWilliams
W. J. Sheppard	Capt. Wm. Robinson
C. S. Wilcox	A. McTavish Campbell
A. E. Dyment	Robert Adair
C. E. Neill	T. Sherman Rogers, K.C.

OFFICERS

E. L. Pease, Man. Director; C. E. Neill, Gen. Manager
M. W. Wilson, Supt. of Branches.

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BRAZIL—Rio de Janeiro. URUGUAY—Montevideo.
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Montreal, Que.	Toronto, Ont.	Vancouver, B.C.	
St. John N.B.	Winnipeg, Man.	Calgary, Alta.	St. John's, Nfld.

C. A. B. BROWN, Superintendent, Toronto

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IMPERIAL BANK OF CANADA

Forty-fifth Annual Meeting of the Shareholders

The Forty-fifth Annual General Meeting of the Imperial Bank of Canada was held in pursuance of the terms of the Charter at the Head Office in Toronto on Wednesday, 26th May, 1920. at 12 noon.

THE REPORT

The Directors have pleasure in presenting to the Shareholders the Forty-fifth Annual Report and Balance Sheet of the affairs of the Bank as on 30th April, 1920, together with Statement of Profit and Loss Account, showing the result of the operations for the year.

The balance at credit of Profit and Loss Account brought forward from last year was	$65,459 66
Net profits for the year, after deducting charges of management, auditors' fees and interest due depositors, and after making provision for bad and doubtful debts and for rebate on bills under discount, amounted to	1,379,318 38
Making a total at credit of Profit and Loss Account	$2,244,778 04

This amount has been appropriated as follows:

Dividends at the rate of 12 per cent. per annum	$840,000 00
Special bonus of 1 per cent. for the year	70,000 00
Annual contribution to Officers' Pension and Guarantee Funds	42,500 00
Special contribution to Pension Fund	100,000 00
Contribution to Repatriation Compaign	5,000 00
Dominion Government Taxes	125,000 00
Balance of Account carried forward	1,062,278 04
	$2,244,778 04

During the year Branches of the Bank have been opened at the following points, in addition to those referred to in last year's Report:—

In Alberta:—Benalto, Bittern Lake, Cherhill; Edmonton; 124th Street, Norwood Boulevard; Griffin Creek, Gwynne, Lousana, Robinson's Crossing, Trochu, Westlock.

In British Columbia:—Creston, Michel.

In Manitoba:—MacGregor; Winnipeg—Portage and Colony Street.

In Ontario:—Toronto: Kingston Road and Balsam Avenue, Monarch Park Avenue and Danforth; Avon, Crampton, Hawkesbury, Hearst, Hilton, Mount Elgin; St. Thomas: Ross and Wellington Streets; Schomberg, Stamford, Sioux Lookout, Verschoyle, Wolfe Island.

In Saskatchewan:—Cando, Edgeley, Foam Lake, Handel, Lebret, Phippen, Yorkton.

The following Branches have been closed:—

In Alberta:—Robinson's Crossing, Rockfort.

In British Columbia:—Kimberley.

In Ontario:—Mount Elgin.

It is with deep regret that your Directors have to record the death during the year of Mr. William Ramsay, who was one of the original founders of the Bank and a Director since its inception; also of Mr. Elias Rogers, who has been a Director since 1897 and Vice-President since 1914. The vacancy in the Vice-Presidency has been filled by the appointment of Dr. W. H. Merritt.

The vacancies on the Board have not been filled, and a by-law reducing the number of Directors to ten with power to increase the number to twelve will be submitted to you.

Mr. A. E. Phipps, who has been in the service of the Bank since 1891, and has until recently been Superintendent of Branches, has been appointed to the position of Assistant General Manager.

The Auditors appointed by you have made their examinations as required by the Bank Act, and their Report and Certificate is appended to the Balance Sheet. They offer themselves for reappointment. The Head Office and Branches have also been carefully inspected during the year in accordance with the usual custom.

The Directors again desire to testify to the satisfactory manner in which the Officers of the Bank have discharged their respective duties.

All of which is respectfully submitted.

PELEG HOWLAND,
President.

LIABILITIES

Notes of the Bank in circulation		$13,354,212 00
Deposits not bearing interest	$25,107,537 14	
Deposits bearing interest, including interest accrued to date of Statement	72,676,679 95	
		97,784,217 09
Balances due to other Banks in Canada	$469,348 67	
Due to Banks and Banking Correspondents in the United Kingdom	5,192 78	
Deposits by Balances due to Banks elsewhere than in Canada and the United Kingdom	320,519 61	
Acceptances under Letters of Credit (as per contra)	498,400 00	
		1,293,461 06
Total Liabilities to the public		$112,431,890 15
Capital Stock paid in		7,000,000 00
Reserve Fund Account	$7,500,000 00	
Dividend No. 119 (payable 1st May, 1920), for three months, at the rate of 12% per annum	210,000 00	
Bonus of 1% for the year, payable May 1st, 1920	70,000 00	
Balance of Profit and Loss Account carried forward	1,062,278 04	
		8,842,278 04
		$128,274,168 19

ASSETS

Current Coin held by the Bank	$2,647,154 62	
Dominion Government Notes	7,928,326 25	
		$10,575,480 87
Deposit in the Central Gold Reserves		7,000,000 00
Deposit with the Minister for the purposes of the Circulation Fund		404,897 03
Notes of other Banks		876,388 00
Cheques on other Banks		5,875,348 18
Balances due by other Banks in Canada		530,015 89
Due from Banks and Banking Correspondents in the United Kingdom		1,218,911 99
Due from Banks and Banking Correspondents elsewhere than in Canada and the United Kingdom		3,689,940 38
		$30,170,982 34
Dominion and Provincial Government Securities, not exceeding market value	$6,436,659 57	
Canadian Municipal Securities, and British, Foreign and Colonial Public Securities other than Canadian	11,304,227 15	
Railway and other Bonds, Debentures and Stocks, not exceeding market value	412,046 82	
		18,152,933 54
Loans to Provincial Governments	$1,157,000 00	
Loans to Cities, Towns, Municipalities and School Districts	5,279,714 11	
Call and Short Loans (not exceeding thirty days) in Canada on Bonds, Debentures and Stocks	5,739,096 95	
		12,175,811 06
		$60,499,726 94
Other Current Loans and Discounts in Canada (less rebate of interest)		60,452,943 43
Liabilities of Customers under Letters of Credit (as per contra)		498,400 00
Overdue Debts (estimated loss provided for)		514,924 72
Real Estate (other than Bank premises)		576,760 57
Mortgages on Real Estate sold by the Bank		517,306 56
Bank Premises, at not more than cost, less amounts written off		4,655,304 11
Other Assets, not included in the foregoing		558,792 86
		$128,274,168 19

PELEG HOWLAND,
President.

W. MOFFAT,
General Manager.

Auditors' Report to Shareholders

We have compared the above Balance Sheet with the books and accounts at the Chief Office of Imperial Bank of Canada and with the certified returns received from its Branches, and after checking the cash and verifying the securities at the Chief Office and certain of the principal Branches on 30th April, 1920, we certify that in our opinion such Balance Sheet exhibits a true and correct view of the Bank's affairs according to the best of our information, the explanations given to us and as shown by the books of the Bank.

In addition to the examinations mentioned, the cash and securities at the Chief Office and certain of the principal Branches were checked and verified by us during the year and found to be in accord with the books of the Bank.

All information and explanations required have been given to us and all transactions of the Bank which have come under our notice have in our opinion been within the powers of the Bank.

G. T. CLARKSON, F.C.A.
R. J. DILWORTH F.C.A.
of Clarkson, Gordon & Dilworth.

The customary motions were made and carried unanimously.

Mr. G. T. Clarkson, F.C.A., Toronto, and Mr. R. J. Dilworth, F.C.A., Toronto, were appointed Auditors of the Bank for the ensuing year.

The Scrutineers appointed at the meeting reported the following Shareholders duly elected Directors for the ensuing year: Mr. Peleg Howland, William Hamilton Merritt, M.D. (St. Catharines), Sir William Gage, Sir James Aikins, K.C. (Winnipeg), John Northway, J. F. Michie, Sir James Woods, E. Hay, Frank A. Rolph, R. S. Waldie.

At a subsequent meeting of the Directors, Mr. Peleg Howland was re-elected President, and Dr. W. H. Merritt Vice-President for the ensuing year.

PELEG HOWLAND,
President

W. MOFFAT.
General Manager

Provincial Paper Mills Co.
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Locate in Brantford

Champion Ignition Company, Flint, Michigan, Are Building Canadian Plant

The Champion Ignition Company of Flint, Mich., are locating a Canadian plant in Brantford, which they will operate under the name of the A. C. Spark Plug Co., Limited. A site covering 15¼ acres, which is part of the waterworks property, has been selected and a factory containing 15,000 square feet will be erected. This will be capable of enlargement as required. Operations will be started as soon as the building is completed, which will be in about four or five months. At the outset about 100 people will be employed. The sole product of the industry will be A.C. spark plugs.

Refinery to be Enlarged

Acadia Sugar Refining Co., Halifax, is on the Eve of Big Expansion

New financing at present being carried on by the Acadia Sugar Refining Co., Halifax, will enable the company to enlarge their capacity from 700,000 pounds a day to 1,000,000 pounds a day. The engineers report that with a comparatively small further outlay, the capacity can be increased to 1,500,000 pounds. The property comprises 170 acres with a water frontage of 1,465 feet and docking facilities on deep water open all the year round. The company also own their own cooperage plant at Moncton.

Plant in Operation

Central Spring Company, Oshawa, Have Started Production of Auto Springs

The Central Spring Company's new plant at Oshawa has been completed, and is now under operation. The main building is 80 x 120 feet, with power house 20 x 42 feet, and office building of ample capacity to take care of future expansion. The most up-to-date machinery has been installed for the fabrication of auto springs. When under way, it is expected that the plant will have an output of approximately 220 to 240 tons per month, and will employ 70 operators. The company, who are owned and operated by Ontario Steel Products Co., Limited, Gananoque, have sufficient space for seven more units similar to the one illustrated in the accompanying view.

Flax Industry for Orono

Company Take Over Old Furniture Factory Building for Ten Year Term

A flax industry is to be located in Orono, Ont. According to the *Orono News*, Messrs. Wilder and Hutchinson, who are the promoters, have leased the old Waddell furniture factory for a term of ten years and will at once remodel it for a flax mill. A part of the machinery has already arrived and the balance will be delivered early in July. The prices paid for flax seems to appeal to the farmers of the district, who have readily contracted a satisfactory acreage.

Branch in Port Hope

Cobourg Felt Co., Limited, Are Establishing Branch Industry in Near-by Town

The Cobourg Felt Co., Limited, have taken over the former Helm Foundry plant in Port Hope and are establishing a factory for the manufacture of soft sole felt slippers. The factory is of brick construction, the main section being 40 x 75, two storeys, with addition 40 x 60 feet one storey and wing 40 x 65 feet. In all there is about 10,000 square feet of floor space. The plant is starting with about forty hands and will have a capacity of 1,500 pairs of felt slippers. The





A Fine New Plant For Oshawa

Exterior and interior views of the main building of the Central Spring Company, erected for the fabrication of auto springs, of which it will produce from 220 to 240 tons per month.

plant, which commenced operation in May, will make footwear only, the felt used being made in the company's mills at Cobourg. A. J. Kimmel, president; A. W. Young, vice-president and secretary-treasurer; A. C. Kimmel, managing director.

Buy New Buiding

S. R. Hart & Company Will Occupy Double the Space of Their Present Premises

S. R. Hart & Company, manufacturing stationers, who have been located for many years at 40 Wellington St. East, Toronto, have purchased a five-storey building at 493 King St. West, into which they will move in the fall. They will have double the space in their present premises, as well as additional space which may be used as the expansion of business warrants. Present quarters have proved to be very considerably too small for their business at the present time, with the result that they have been unable to turn out their product at anything like the rate they would wish. In fact, during the last few years, they have been compelled to turn down orders that they have been unable to handle.

A Charlottetown Development

Bruce Stewart & Co., Limited, Are Doubling Capacity of Their Gasoline Engine Plant

An interesting development in Prince Edward Island at the present time is the enlargement of the plant at Charlottetown of Bruce Stewart & Co., Limited, manufacturers of the "Imperial" line of gasoline engines. In order to meet the increasing demand for these engines, it has been found necessary to erect a new building. This is a structure 60 x 120 feet, brick with concrete trimmings and steel sash, asbestos-slate roofing diagonal pattern and thoroughly fireproof. It will be ready for occupation about July 1st, and will about double the company's capacity. In addition to manufacturing gasoline engines, Bruce Stewart & Co., Limited, conduct a general machine shop and foundry business, including boiler-making, plumbing, steam and hot water heating, ship chandlery, sail-making, etc., and are also dealers in automobiles and accessories. They report that business has been good this spring, notwithstanding the high cost of materials of all kinds.

Building Addition

United Drug Co., Limited, Toronto, Putting Up New Building at Cost of $125,000

The United Drug Co., Limited, manufacturers of Rexall products, are at present erecting an addition to their plant at 78 Broadview Avenue, Toronto. It is 72 x 101 feet, mill construction and uniform with their present building. The new building will provide additional space for enlargement of present departments. It is costing $125,000 and will be completed in July.

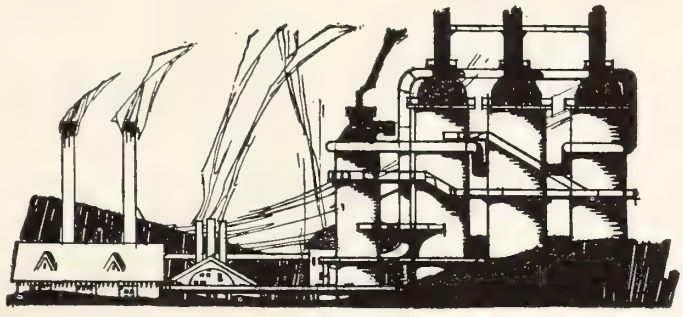
The company state that "the present addition will enable us to enlarge our departments so that better production can be obtained and will naturally increase our output and enable us to ship promptly all orders which we are now receiving. Our heaviest business comes in the fall months, and owing to the freezeable nature of some of our productions we are obliged to stock up heavily in the summer months for heavy shipments to the east and west. Again, we find it necessary, on account of embargoes and the difficulty in obtaining crude supplies, to carry much heavier stocks of raw material, containers and packing material than at any time previous."

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D-2

Toronto Company Expands

The Otto Higel Company, Limited, Adding to Mill Room and Building Dry Kiln

The Otto Higel Company, Limited, manufacturers of piano actions, keys and hammers, etc., Toronto, have recently acquired additional property at the corner of King and Tecumseh streets. This property adjoined their present premises and it was decided to purchase it so that they would control the whole block from Bathurst to Tecumseh Street. It is not their intention at the present time to extend their main plant, but they are making an addition to their mill room which will give them about 10,000 feet more space. They are also putting up a new dry kiln, which will give them a further capacity for drying about one million more feet of lumber per year.

Form New Company

Dominion Bridge Company Carry Out Further Plans in Connection With Subsidiaries

At the annual meeting of the Dominion Bridge Company in January last, announcement was made that, in order to segregate the operation of the department manufacturing paper-mill machinery, a new company was being formed under the name of the Dominion Engineering and Machinery Co., Limited. with an issued capital of $2,500,000. Since then further developments have taken place and an alliance has been formed with several power companies, which must soon make large additions to their hydraulic machinery. In order to provide for this additional work, a new company called the Dominion Engineering Works, Limited, has been incorporated with an authorized capital of $10,000,000, half in 8 per cent. cumulative redeemable preferred shares and half in common shares. The Dominion Engineering and Machinery Co., Limited, will sell its undertaking as a going concern, receiving a majority of both the preferred and common shares and giving the Dominion Bridge Co. a controlling interest. The new company will enter into an agreement with the Wm. Cramp & Sons Ship and Engine Building Co. for the exclusive use in Canada and the British Empire of its designs for water wheels and other hydraulic machinery. The board of directors will include Sir Herbert Holt, George Chahoon, jr., Julian C. Smith, Howard Murray and H. Birchard Taylor, the lattter being Vice-president of the Wm. Cramp & Sons Co.

Improving Plant

Recently Organized Western Canada Pulp and Paper Co., Limited, Take Action

Among companies which have recently been doing some financing in order to provide for plant improvement in the Western Canada Pulp & Paper Co., Limited, who have recently taken over the properties and good-will of the Rainy River Pulp & Paper Co., as well as 19,000 acres of Crown grant lands on Vancouver Island. The company's plant is located on Howe Sound about 25 miles from Vancouver. The pulp mill, under operation by the former company, reached a capacity of 20 tons per day of first quality kraft or sulphate pulp. The enlargement being carried out by the new company will double the capacity. The company own their own townsite, which is located on navigable deep water, equipped with a dock 600 feet long, with sufficient depth in sheltered water for ocean-going vessels. The company have also acquired a valuable asset in the water power of Rainy River, the foreshore rights at the mouth of the river and 1,000 feet of waterfront on Thomborough Channel, Howe Sound. The company's timber holdings, owned and to be acquired, are estimated to contain over 1,500,000 cords of

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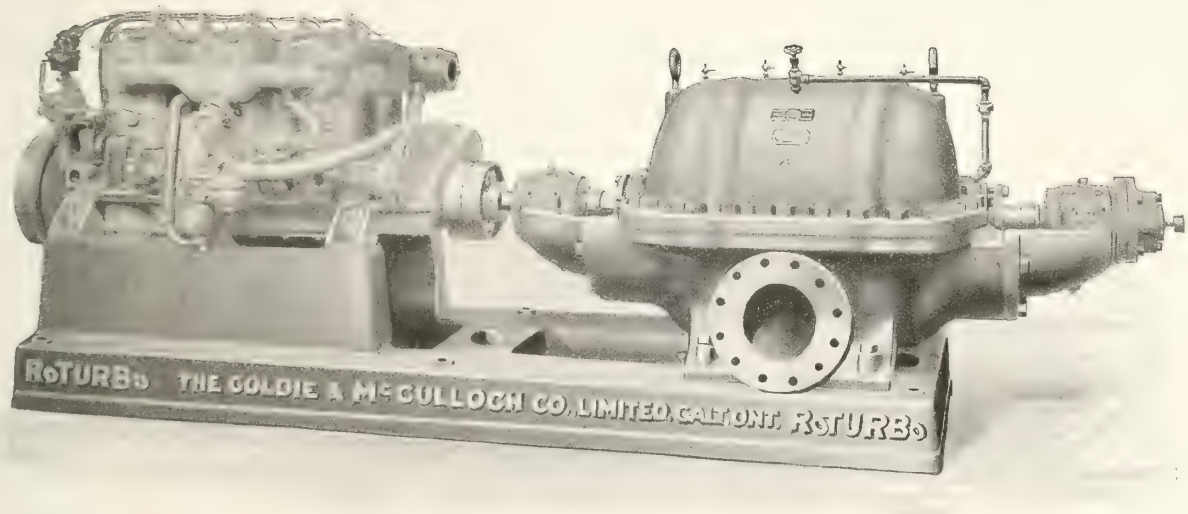
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Will Make Pocket Knives

Canada Cutlery Co., Limited, Establishes a New Industry in City of Kingston

Ratepayers of Kingston voted favorably on May 19 on a by-law providing for the purchase by the city of the Cereal Works property and its lease for twenty years with option of purchase to C. A. Eaton of Turner's Falls, Mass. It is Mr. Eaton's intention to commence the manufacture of pocket knives and a company to be known as the Canada Cutlery Co., Limited, will be formed for the purpose. Mr. Eaton, who has for the past fifteen months been works manager of the John Russell Cutlery Co., Turner's Falls, Mass., will be general manager of the company. The company will have an authorized capital of $50,000, of which $35,000 will be issued immediately and the balance as required.

Extending at Cobourg

The Bird-Archer Co., Take Over Ammunition Plant Formerly Run by Cohoes Steel Co.

The Bird-Archer Co. of New York, who have been operating a plant at Cobourg for the past three years manufacturing boiler compounds, are extending the scope of their industry. They have acquired the ammunition plant formerly occupied by the Cohoes Steel Company, Limited. They are transferring their boiler chemical department to the new plant, and expect to have it in operation by July 1. They propose to add the manufacture of high-speed cast-steel tools and foundry chemicals. Production of the former will be commenced by January 1, and of the latter by the end of September. They will probably employ from 50 to 100 hands.

Locate in Toronto

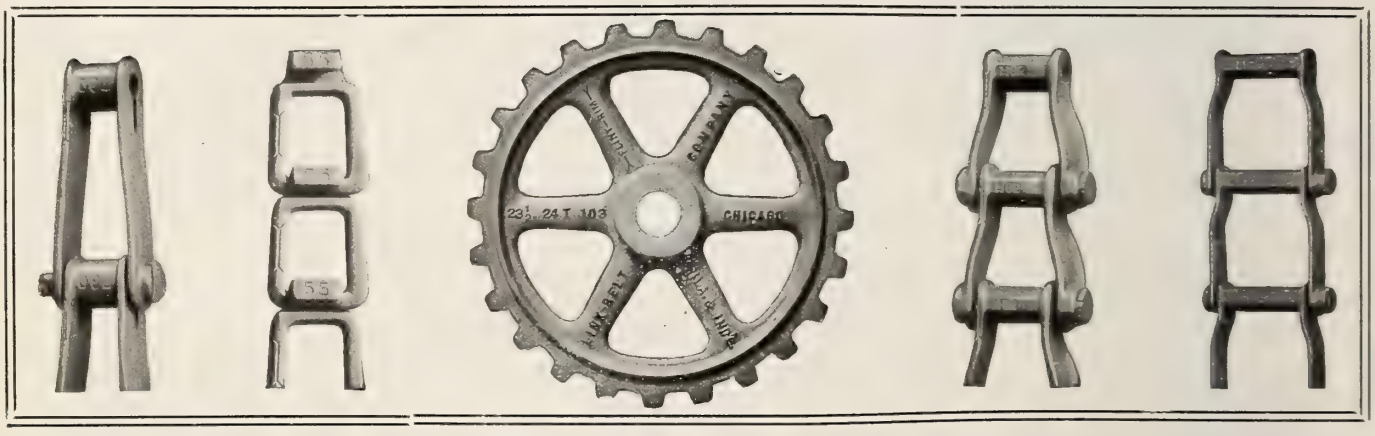
A. Stein & Co., Chicago, Establish a Branch Plant in Canada to Make Their Products

A branch of the A. Stein & Company, of Chicago, manufacturers of various elastic products, has recently been established in the Empire Building, Toronto, under the name of A. Stein & Co., Limited. The American company have been in business since 1887 and their plant is the largest in the world in its particular line. At present the Canadian company are manufacturing arm-bands and children's hose supporters and will very likely in the near future extend their line to several other elastic products. They have started in a small way with the intention of enlarging as they place their various products into manufacture.

Laurentide Enlargement

Good Progress Being Made in Preparation for Installation of New Machines

According to the *Digester*, the Laurentide Company's weekly publication, it is likely that the new paper machines now being manufactured by the Dominion Engineering Works, Montreal, will be installed and in operation at the company's plant in Grand Mere, P.Q., before the end of the year. Already about 50 of the 80 dryers, needed for the two machines, have been cast and the foundry is turning out one a day. The frames for the dryers are almost complete. The frames



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What do you think is the best use for Daylo? Your thought may win you $3,000.00—$1,000.00—$500.00 or one of the 100 other cash prizes of the

Eveready Daylo $10,000.00 Cash Prize Contest

Dealers everywhere are displaying a remarkable picture in their windows. See it. Study it. Get a free Contest Blank from the Daylo dealer and send in your answer. There's no cost or obligation. If two or more contestants submit the identical answer selected by the judges for a prize, the full amount of the prize will be paid to each. Contest closes August 1, 1920. The Art Editors of "Life" will judge the answers.

CANADIAN NATIONAL CARBON CO.
Limited
Toronto

This sign on Daylo Dealers' windows identifies dealers showing the $10,000.00 Contest Picture.



A-3118

for the four presses have been cast. Meanwhile work is being pushed ahead rapidly on the construction of the new machine room, and by July 1st the building will be far enough advanced to begin the installation of the new machinery.

New Scutching Mill

The Stratford Flax Company, Limited, Are Erecting Four Buildings in Stratford

A scutching mill, 45 x 50 feet, two storeys high, of concrete construction, is under erection at Stratford by the Stratford Flax Company, Limited. The company are also building three steel storehouses about 40 x 100 feet, as they need rather large storage capacity for this size of mill. The company's acreage this year will be about 400 acres and they estimate the total cost of growing an acre of flax from sowing time to the finished scutched flax at about $175. The pulling at present is all done by hand, as is also the retting, both operations being pretty expensive at the present cost of labor. The president and treasurer of the company is Walter Miller, and the manager, Paschal Pigeon, both of whom have had a good many years' experience in the flax business.

Developments at Trenton

Plans of Chemical Products, Limited, for Utilization of Plant of British Chemicals

Some time ago announcement was made that the plant of British Chemicals, Limited, at Trenton, Ont., one of the undertakings of the Imperial Munitions Board, had been taken over by Chemical Products, Limited, a new corporation succeeding Chemical Products of Canada, Limited, 148 Van Horne Street, Toronto. *The Canadian Chemical Journal* now publishes the following information about developments at the Trenton plant:

"It is proposed to divide the plant into four units, the first section to be a sulphuric acid plant, to be operated largely for fertilizer production. The nitric acid plant will be used later with a view to producing mixed acids for explosives, dyestuffs, intermediates, etc. Plant No. 2 is proposed for the manufacture of refined nitrate of soda, Epsom salt and general chemicals. In plant No. 3 it is planned to make salicylates and allied derivatives, namely, aspirin, salicylic acid, sodium salicylate, oil of wintergreen, cresotinic acid, etc. The production of ammonia and coke-oven by-products is contemplated in plant No. 4, including salammonic, ammonium carbonate, liquid ammonia, aromatic hydro carbons and whiting."

Aspirin was successfully produced on a commercial scale by Chemical Products of Canada, Limited, in Toronto. The market is large, and it is believed that from 600 to 800 tons per year can be handled. It is proposed to produce salicylic acid in excess of aspirin and salicylate requirements. This is a chemical, largely used for remedial preparations and dyestuffs, that was produced exclusively in Germany before the war. With respect to refined nitrate of soda, contracts covering about 3,000 tons have already been closed. Acid phosphate, for fertilizer purposes, is in great demand, there being a world shortage. The capacity of the sulphuric acid plant will be 120 tons per day.

The new company, which is capitalized at $2.000,000, has as its directors—R. J. Copeland, Copeland-Chatterson, Limited; D. M. Sanson, Graham, Sanson & Co.; R. J. Cluff, President of Chase Tractors Corporation; J. C. Groves, President Saginaw Chemical Co., Saginaw, Mich.; T. E. O'Reilly, Secretary-treasurer of T. E. O'Reilly, Limited, Toronto; W. H. Vanwinckel, Vice-president of Aniline Dyes and Chemicals

The Canadian Appraisal Company

Limited

FULL consideration must be given to the present conditions of high costs if adequate insurance is to be provided, an adverse operation of the Co-insurance Clause is to be avoided, and a satisfactory adjustment is to be assured in the event of fire.

Buildings erected only a few years ago may very possibly be worth double their original cost to-day. *This increased value is insurable and must be insured.* A bitter experience awaits the manufacturer who has not considered the necessity and who may have to rebuild after a fire.

To guess at values when insuring is obviously bad business. A leading Insurance Company states: "It is a fact that 85 per cent. of manufacturers do not carry enough fire insurance as compared with their present valuations."

An Appraisal made on the basis of to-day's costs of labour and material is the only sound foundation for correct methods of insurance.

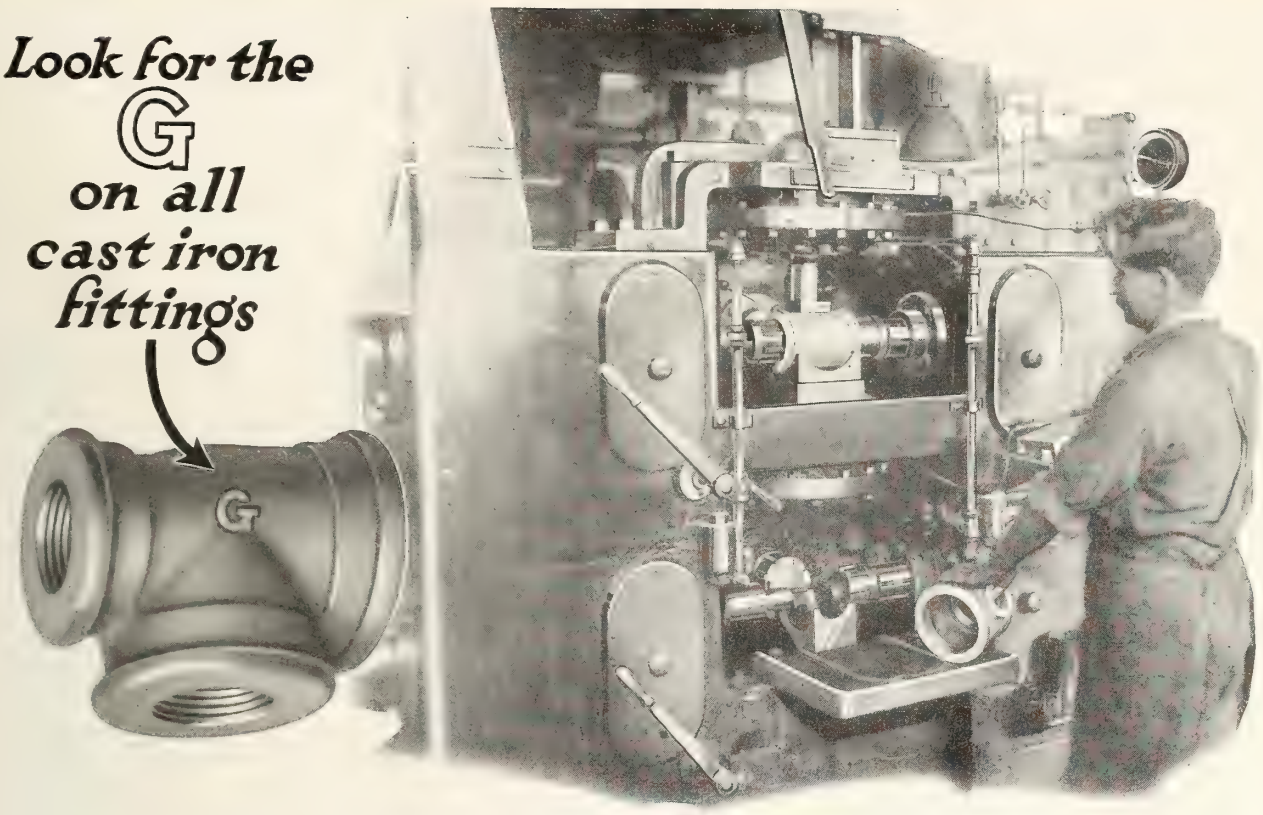
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Threading a six inch reducing cast iron fitting on one of the Grinnell Tapping Machines of our own design

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As the manufacturers of Grinnell Automatic Sprinkler Systems, we are one of the largest users of Cast Iron Pipe Fittings in Canada.

So we decided to make our own and make them better than those we could buy. Then we put them on the market, and they've made a big hit.

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Grinnell Perfect Fittings save time and labor. They make better jobs that please your customers and help your trade.

They are strictly quality fittings. Every piece is rigidly inspected; and any that are not absolutely up to the standard are thrown out. Nothing but the best is good enough for us—and, therefore, for you and your trade.

Count on Our Big Stock of Pipe and Fittings

We carry one of the largest stocks in Canada and can make quick deliveries. We also carry a full line of Black and Galvanized Pipe, which we cut and thread to your sketch.

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Complete Engineering and Construction Service on Automatic Sprinklers
Industrial Piping, Heating and Power Equipments. Fittings, Pipe Valves

Ask the owners of 25 million Grinnell Sprinkler Fittings

Inc., New York. The manager will be A. H. C. Heitman, who was for years with the research division of Parke, Davis & Co., Detroit, and who successfully installed the chemical division of the Cott-A-Lapp Co., Limited, Walkerville.

New Winnipeg Enterprise

Eternal Battery Co. of Canada, Limited, Will Build Plant in Kildonan

The Eternal Battery Co. of Canada, Lmited, recently formed to take over the business of the Eternal Battery Co., Winnipeg, have acquired a two-acre site at the corner of Main Street and Toronto Avenue in Kildonan and will erect a large new plant. The company are manufacturers of the "Eternal" battery, the invention of Charles William Jenner, president of the company, which is stated to be superior to anything of its kind yet produced. It is the intention to establish agencies in all parts of Canada and ultimately several branch factories, should conditions so warrant. To finance proposed developments an offering of three thousand shares of seven per cent. cumulative and participating preferred stock of the company at par is being made by the Notre Dame Investment Co., Limited, Winnipeg. Associated with Mr. Jenner in the company are Don I. Cameron, Brig. Gen. R. W. Paterson, C.M.G., D.S.O., T. L. Hartley, C. T. Lount and Eimar E. Soot.

Enlarging Plant

The H. E. Furniture Co., Limited, Milverton, Will Have a Larger Capacity Soon

The H. E. Furniture Co., Limited, manufacturers of kitchen cabinets, Milverton, Ont., are at present putting up an addition, 60 x 60 feet, three storeys, solid brick construction, to their factory, at an estimated cost of $25,000. The addition is required largely for offices and shipping room on first floor, trimming department and storage of supplies on second floor, with stock-room on third floor. They expect to add about twenty employees to their staff and will continue to manufacture kitchen aid cabinets and "Red Seal" cedar chests.

More Capacity

Kinleith Paper Mills, Limited, Are Lengthening Size of One of Their Machines

Kinleith Paper Mills, Limited, manufacturers of high-grade book, writing and bond papers, are enlarging the capacity of their mill at St. Catharines by increasing the size of one of their machines. An addition, seventy feet long, is being made to one of the paper machine rooms, which will enable them to put on extra dryers, etc. The estimated cost of this, including the change in the machine, will be about $90,000. They expect to have the addition completed in the early part of November and look for an increase in capacity, as a result, of about 25 per cent.

Enlarge Durham Mill

Rob Roy Mills, Limited, Will Increase Capacity of Rolled Oats and Oatmeal Mill

Rob Roy Mills, Limited, who have been operating oatmeal and rolled oats mills at Durham and Seaforth, Ont., and at Yorkton, Sask., are enlarging their plant at Durham and moving down the machinery from Yorkton. They will make a brick addition to the mill and a concrete addition to their grain elevator in order to increase storage capacity. The total cost of the additions will be from $50,000 to $60,000.

Nova Scotia Steel & Coal Co.
LIMITED

PLATES

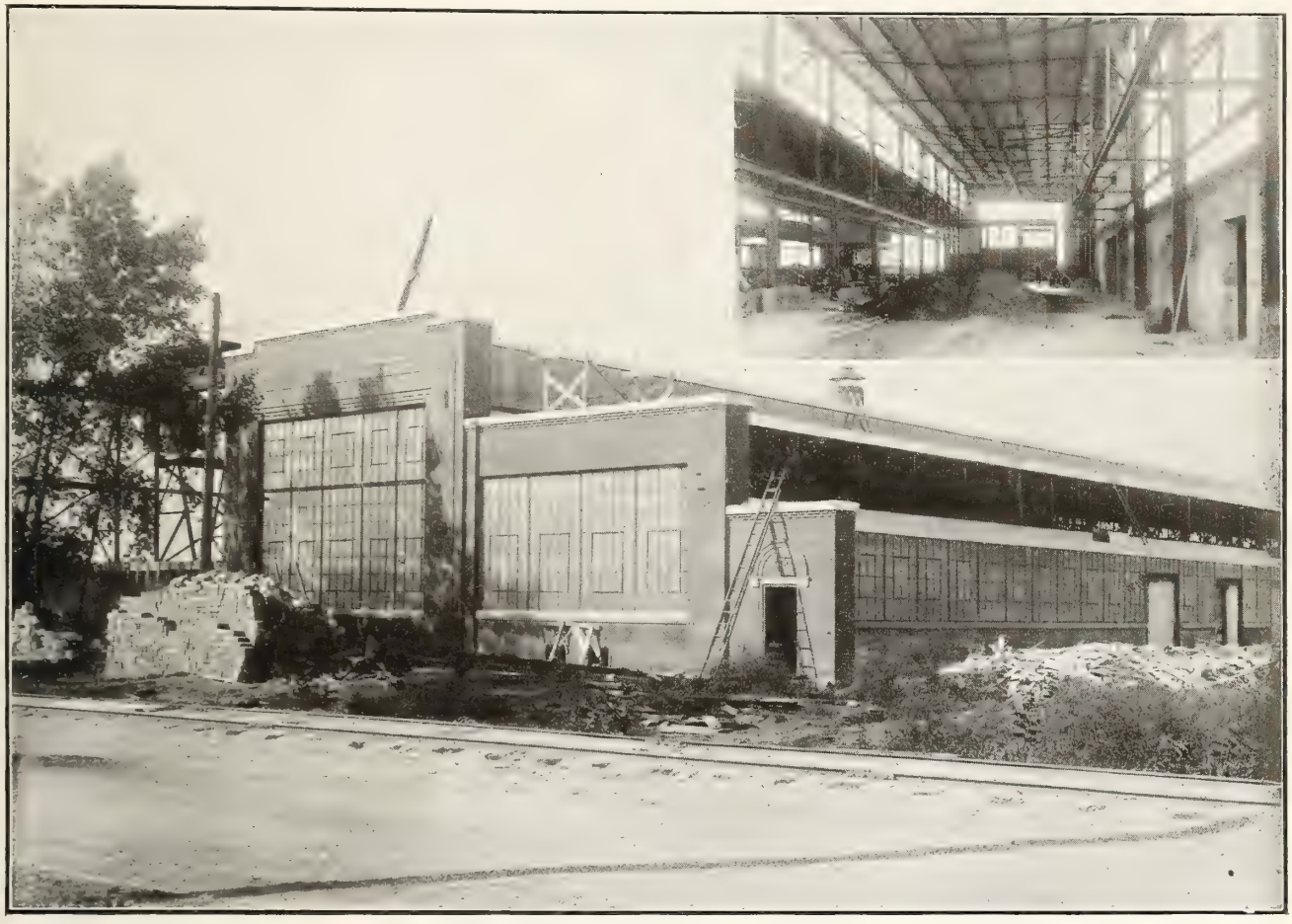
1/8 to 5/8" thick up to 48" wide, weighing up to 1060 lbs. each

Fluid Compressed Steel Forgings

We manufacture Merchant Bars, Rounds, Flats, Squares, Ovals, Half Ovals, Tires, Sleigh Shoes, Plain or Twisted Concrete Bars, Agricultural Sections, Cold Drawn Shafting, Machinery Steel, Angle Bar Fish Plates, Track Spikes and Bolts.

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Scientific Refining
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For Full Information Write for Catalog I

Canadian Mathews Gravity Carrier Co., Ltd.
PORT HOPE, ONT.

When completed they will have a capacity on rolled oats and oatmeal of 500 barrels per day, while the feed plant will have a capacity of 100 tons per day.

Turned First Sod

Langslow, Limited, Commenced Building Operations at Cobourg on May 27

Mrs. Harry Langslow, of Rochester, N.Y., turned the first sod on May 27th in connection with the establishment of the furniture factory at Cobourg by the Langslow, Fowler Co., Rochester. The affair was made a public function with the mayor, town council, president and members of the Board of Trade, and prominent citizens in attendance. Later a banquet was held. The company, who will operate under the name of Langslow, Limited, have taken over the old Crossen Car Works, but are putting up three new buildings, which, with equipment, will cost in the neighborhood of $200,000. The company will make household, school and office furniture and other wood and steel products.

Adding Another Machine

Spanish River Pulp and Paper Mills, Limited, Order 50-ton Machine for Sturgeon Falls

Following the announcement that two new one-hundred-ton machines were being added to the equipment of the Spanish River Pulp & Paper Mills, Limited, comes the further announcement that a 50-ton machine will also be added to the mill at Sturgeon Falls. About six months will be required to complete the installation and by the end of the year the company's capacity should be up to 650 tons, distributed as follows: Sturgeon Falls, 175 tons; Espanola, 225 tons; Sault Ste. Marie, 250 tons.

Merger at Brantford

John H. Hall & Sons, Limited, Link Up with Williams Tool Corporation, Erie, Pa.

John H. Hall & Sons, Limited, Brantford, who are the largest manufacturers of pipe machines in Canada, have merged their business with that of the Williams Tool Corporation of Erie, Pa., who are the largest and one of the oldest manufacturers of pipe machines in the United States, having a capitalization of $1,000,000. The Brantford plant will be known as the Hall plant of the Williams Tool Corporation.

Mr. Leslie S. Hall, president and general manager of John H. Hall & Sons, Limited, when interviewed as to the possible changes the merger would make with the present active members of their company, stated that no radical change would be made in the management; in fact with the American organization coming in the local branch would be in an enviable position as nearly all of the present officers would continue on in executive positions in the new corporation.

Mr. Leslie S. Hall will be vice-president, taking an executive position between the two factories. Mr. A. R. Hall will be manager of the local plant, and Mr. E. L. Williams will have charge of the office. Mr. E. W. Hall is retiring as secretary and treasurer of the company, and Mr. E. L. Hall will no doubt continue with the new corporation on his return from England.

At present the Brantford plant is running to full capacity, and has been operating a night shift for some months past. With the increasing demand for Hall machines, and the prospect of large export orders, it is expected that it will be necessary, in the near future, to vacate the present premises and build a large modern factory elsewhere.

The merger of these two large companies, specializing on pipe machines alone as they now do, will mean much to the

Quality

CONFIDENCE

THE GREATNESS OF BRITAIN IS FOUNDED ON HER INTEGRITY.

HER STRENGTH SHE DERIVES FROM WORLD COMMERCE—HER ENDURANCE FROM CONFIDENCE.

THE WAR TEMPORARILY RETARDED HER CONSTRUCTIVE EFFORTS, BUT THE POWER OF THE CONFIDENCE OF THE PEOPLES OF THE WORLD WILL RESTORE TO HER IN MORE BRILLIANT FORM THE LEADERSHIP SHE HAS JUSTLY EARNED AND PROUDLY HELD.

CONFIDENCE IS THE FOUNDATION OF OUR POSITION IN THE WORLD OF IRON AND STEEL—OUR PROGRESS DEPENDS ON IT.

WE HAVE BEEN SUCCESSFUL IN THE PAST—THE FUTURE IS BEFORE US. TO ADVANCE, WE MUST CONTINUE TO MERIT THE CONFIDENCE OF THE BUYERS OF STEEL AND IRON PRODUCTS OF EVERY DESCRIPTION IN CANADA, AND WE ARE DETERMINED TO ADVANCE.

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STEEL COMPANY
OF
CANADA
LIMITED
HAMILTON MONTREAL

Service

Monarch Metal Co.
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Brass, Bronze and Aluminum
Ingots and Castings
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machinery houses of Canada and the users of pipe threading machines in general. The new corporation will have a capitalization of one and a quarter million dollars, and the entire activities of the company will be to produce the very latest and best in pipe-threading machines. To the machinery houses this will mean that the present high standard of the Hall product will be maintained and if possible improved. Machines will be manufactured in larger quantities and it is hoped in the near future that the company will be able to make shipment from stock held in their own warehouse. Standard stock parts and dies will be available for immediate shipment.

A special department of the new corporation will be the publicity engineer, or educational department. Attractive literature, covering the various uses of the pipe machine, as seen from the users standpoint, will be covered, showing charts, diagrams and devices in actual practice, the cost of threading pipe, lost production and how to overcome same. For the man on the machine a complete service of instructive and educational circulars, service charts and booklets will be issued, giving the operator the manufacturers' advise and service of twenty years' experience in threading pipe.

Hall & Sons have made many distinctive improvements on the pipe machines, which are all covered by patents, and these, in conjunction with the American company's patents, will cover all the requirements of the pipe threading trade. The company are installing several special, high-powered, modern machines which, they hope will enable them to overcome the continued delay in shipments.

Norton Plant Starts

New Industry at Hamilton of Norton Co. of Canada, Limited, Now in Operation

The new plant, which has been under construction at Hamilton by the Norton Company of Canada, Limited, has been completed and is now in operation. It is a branch of the Norton Co. of Worcester, Mass., and Chippawa, Ont., and will manufacture alundum grinding wheels made by either the vitrified or silicate processes. A stock of the various sizes of wheels likely to be called for will be kept on hand and delivery can be effected in short order on wheels that have to be made up. It is expected that the same standard of service and quality will be maintained as before as the wheels are to be made under exactly the same conditions as applied at the plant at Worcester with a staff of foremen from there under the direction of R. G. Douglas, manager; Frank M. Ryan, production engineer, and Albert Johnson, general foreman.

Erect Large Addition

The Louis McLain Company, Limited, Are Putting Up Large Plant in Toronto

The Louis McLain Co., Limited, manufacturers of aluminum cooking utensils, are at present rushing up a new factory building at 2466-80 Dundas St. West, Toronto. The new plant, which will treble their present capacity, is a building, 80 x 110 feet, five storeys high, of steel and brick construction. Its estimated cost will be $125,000 and the company expect to start manufacturing in it by September 1, providing work continues as rapidly as at present. The building will be used exclusively for the manufacture of aluminum cooking utensils and will be the largest and most complete modern factory on the continent making aluminum cooking utensils exclusively.

The company were organized in the fall of 1916 on a very small scale, starting as jobbers at Winnipeg, specializing in



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Complete Planing and Re-saw Mills at Your Service. Buy Bathurst Dressed Lumber and Save Money

KRAFT AND UNBLEACHED SULPHITE PULP

We invite your inquiry

BATHURST LUMBER CO. LIMITED

BATHURST, N.B.

Building The Name McClary's

¶ Stories are often told of how men, in anxious endeavor to secure financial independence, overlook the fundamentals of business success.

¶ The story of McClary's, and the building up of the name, is a record of substantial achievement interspersed with incidents which serve to illustrate the fine principles always rigidly adhered to, even through the passing of seventy-three years.

¶ In 1847, when Ontario was wild, and bartering was the chief method of doing business, the germ of ambition held solid root in the mind of one, John McClary.

¶ He, who, at the full age of ninety-one, still remains the active President of the product of his created genius, overcame difficulties and surmounted temptations through his own prodigious efforts and sterling integrity.

¶ His master mind, through the years of Canadian Development, inspired his executives and helpers to big things, but none greater than the establishment of the unchangeable association of the name **McClary's** with the virtues of confidence, stabilized quality and paramount satisfaction.

¶ Building the name **McClary's** has been arduous, at times trying, but always satisfying—to-day it holds its sway because it was built right and has stayed right.

McClary's

Makers of Good Stoves and Cooking Utensils

LONDON TORONTO MONTREAL
WINNIPEG VANCOUVER ST. JOHN, N.B.
HAMILTON CALGARY

aluminum cooking utensils and articles for the kitchen. Since then they have built a two-storey, 80 x 90 feet, factory in Toronto, continuing their four-storey warehouse in Winnipeg, as well as a large warehouse in Kitchener for eastern distribution. They also have a selling agency in Montreal and one in Vancouver.

Now Well Established

J. H. Soars, Limited, Montreal, Have Their Organization on a Well-Established Basis

J. H. Soars Limited, specialists in roll grinding and corrugating for flour mills, paint, spice, coffee, linseed oil, white lead and ink manufacturers, etc., who started business at 576 Centre Street, Montreal, last September, report that their organization is now on an established basis. Their plant is equipped with the latest machinery and the most modern methods are employed. So accurate are the machines used that they can grind a roll true to the 1/10,000 part of an inch and they guarantee every roll that passes through their hands to be up to this standard. Mr. Soars is a specialist in this business and the management of the plant is entirely in his hands. He was for 15 years before coming to Montreal in charge of the plant of the Sprout, Waldron Co., of Muncy, Pa.

Started at St. Catharines

Walton-Carlson Co., Limited, Began Manufacturing Auto Accessory Tools on June 1

The Walton-Carlson Co., Limited, have established a new industry in St. Catharines for the manufacture principally of auto accessory tools. They have a plant containing 4,000 square feet of space and started operations on June 1, employing about ten or fifteen hands. They are equipped to do drop forging and stamping work in addition to the manufacture of tools, and have a nickel-plating department to take care of their own and outside work. The company are capitalized at $40,000, with A. T. Baker, president; W. V. Carlson, vice-president, and S. G. Walton, secretary-treasurer and manager.

New Industry at Regina

The Western Knitting Co., Are Now Manufacturing High Grade Sweaters, etc.

One of Regina's newest industries is the Western Knitting Co., who started business recently and have been making good progress. They are occupying a plant 50 x 30 feet in size and are making ladies', men's and children's sweaters with a capacity of two dozen per day. The capital of the company is $7,500 and those interested are J. Saltman, H. Cooperman and H. Lupesen. Since organization the company have increased their machinery to three hand-weaving machines and they intend to increase the number again this fall.

Their Second Addition

Glassco Limited, Oakville, Will Increase Their Output by From 25 to 35 Per Cent

For the second time since 1916, Glassco Limited, fruit preservers, Oakville, have found it necessary to enlarge. They are building an addition, 50 x 50 feet, for the purpose of a storage and packing room. This has been found necessary in order to relieve the congestion in the other buildings of the plant, business having increased steadily ever since the company were established. They expect to complete the work of construction by the middle of the month, and this should increase output by from 25 to 35 per cent. at least.

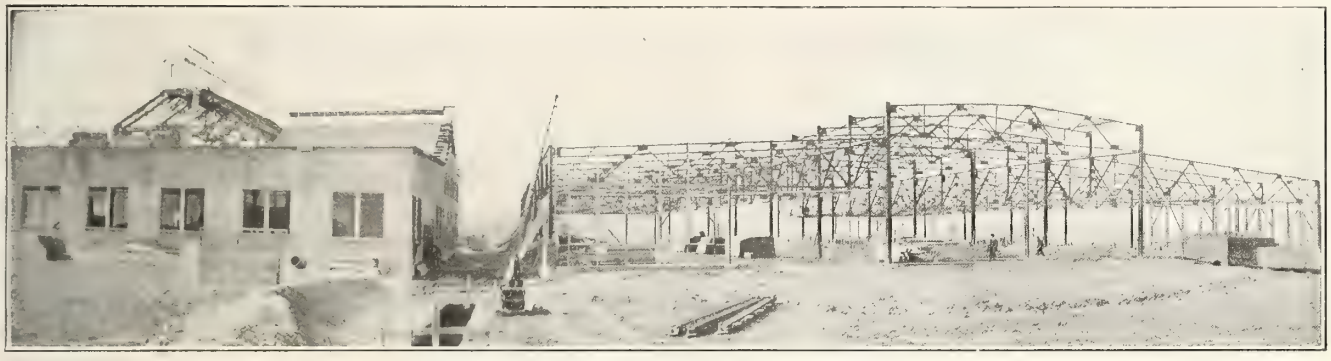
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Annual Capacity 36,000 Tons



Steel Buildings for Glass Works, Thorold, Ont.

Steel Railway and Highway Bridges, Buildings, Crane Runways, Towers, Turntables, Tanks, Girders, Trusses and Columns

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C. H. JOHNSON & SONS, LIMITED

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Glassco Limited stated that the outlook for business is very good, but is confusing on account of the critical situation in the sugar market. It is very hard to obtain materials such as sugar, tins, glass jars, boxes, etc. However, there is bound to be a return to more normal conditions within the next year, in their opinion.

Increased Capacity

Canadian Woollens, Limited Are Adding to Their Mills at Peterboro, Ontario

Canadian Woollens, Limited, are proposing to add two new storeys to their English Worsted Mills at Peterboro. Three additional storeys will contain twenty spinning frames with necessary drawing, twisting and reeling, which will increase present output by about 50 per cent. These frames will be delivered early in 1921. Good progress is being made with the enlargement of the company's Auburn Mills. This enlargement consists of a weaving shed containing thirty looms. It will be completed in a few weeks and will increase output by about 60 per cent.

Change at Brantford

The McClary Manufacturing Co., London, Take Over the William Buck Stove Co., Limited

The plant of the William Buck Stove Co., Limited, Brantford, which was practically destroyed by fire early in May, has been acquired by the McClary Manufacturing Co. of London, and will in future be operated as a branch of the latter company. The William Buck Stove Co., Limited, was founded by the late William Buck in 1852, and continued by him until his death in 1897, when it was incorporated, since which time it has been operated by his sons, George and Philip, who were president and vice-president respectively. The company were manufacturers of the "Happy Thought" range. About 300 men have been employed by the Buck Co. The McClary Co. have already gotten the plant in running order again.

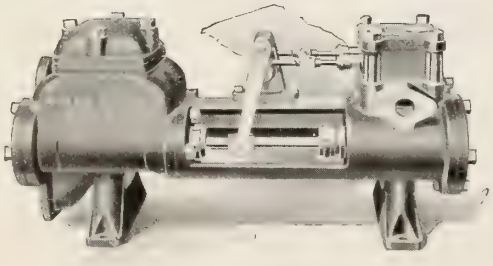
Simmons, Limited, Montreal, are proposing to build at London, Ont., a service station with about 10,000 square feet of floor space to carry finished stock for the convenience of Western Ontario customers.

The Lake Superior Loader Company, Duluth, Minn., are having some "shuveloders" (underground loading machines) manufactured by the Port Arthur Shipbuilding Co. for sale in Canada. Later on they may organize a Canadian company and manufacture this product themselves, but of this there is no certainty at the present time.

Owing to inability to secure more power, Dumarts, Limited, pork packers, Kitchener, have called in plans for new plant and will not proceed with construction at present. They had intended putting up a building 140 x 40 feet, four storeys and basement, which would have increased their capacity from 100 to about 1,000 hogs a week.

The Belding Paul Corticelli Co., Limited, are erecting a storehouse in connection with their plant at Coaticook, P.Q. It is 40 x 40 feet, two storeys, of concrete and brick construction, costing $7,000. Its erection will give more space for the erection of machinery in the main mill.

Piston Packed Steam Pumps



Small Piston Packed Duplex Steam Pump

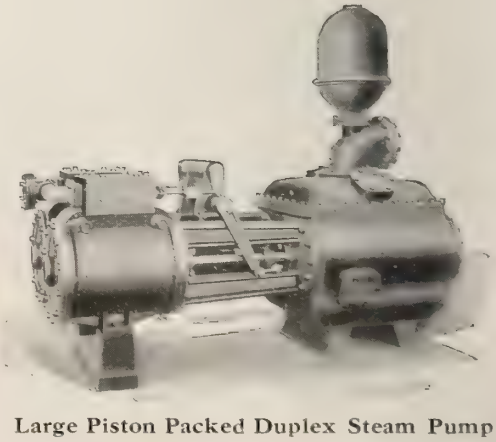
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For Boiler Feed or General Service, for pressure up to 150 lbs., will handle thick or thin, hot or cold liquids.

All sizes have brass liners in the water cylinders, brass valve seats, and brass valves.

They maintain their full stroke at all piston speeds.

Standard sizes carried in stock.



Large Piston Packed Duplex Steam Pump

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Kitchener, Ont.

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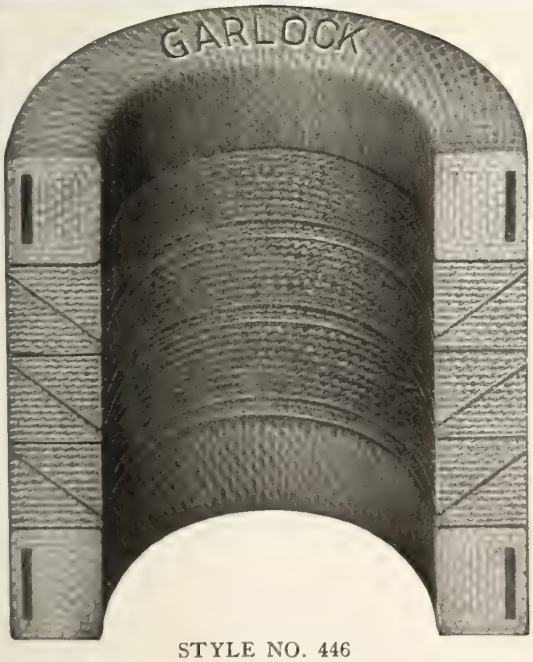
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High Pressure Steam Rods
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These packings are guaranteed to give satisfactory service under the above conditions.
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The Central Electric Station Industry

(Analysis of Dominion Water Power Branch)

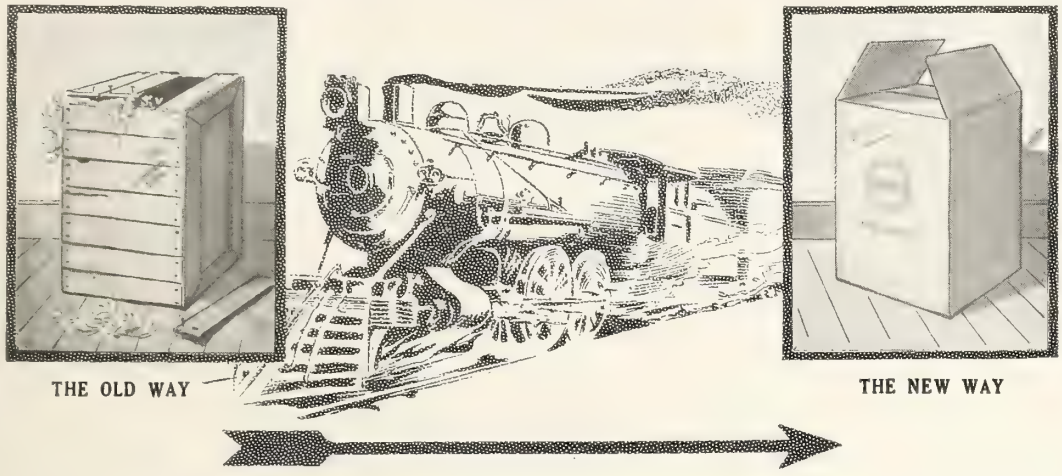
ELECTRICAL energy, through its ease of transmission and its broad adaptability to domestic, industrial and commercial use, has become of paramount importance to our modern life. The generation of electricity, dependent in the greater part upon coal and water power, has offered outstanding advantages to the efficient utilization of the latter, and Canada has been quick to appreciate the peculiar advantages possessed by her strategically located water powers and to realize in their development for hydro-electrical purposes, one of her greatest natural resources. In this development the central electric station industry has played a most important part, and in view of its exceptionally rapid development, particularly during recent years, a record of its present standing is of special interest.

The Dominion Water Power Branch, Department of the Interior, in co-operation with the Dominion Bureau of Statistics, is publishing an analysis of the results of the second census of central electric stations in Canada, showing the status of this important industry at January 1, 1919. The report includes statistics relative to central electric stations only, as defined for census purposes: that is, stations which sell or distribute electrical energy for lighting, heating or general power purposes, other than that generated by industrial organizations for their own direct use in the operation of some other industry. The statistics, therefore, treat only with the generation and distribution of electrical energy in so far as such energy is not used directly by the station reporting. In each case where the central electric station operations are combined with those of some other industry special care was taken to secure statistics relating only to that part of the operations which is chargeable solely to the central station activities.

The central electric stations are divided into two fundamental classes—generating stations, which include stations generating all or part of the power they sell or distribute, and non-generating stations which purchase from some other station all the energy they sell or distribute. The analysis further divides the stations according to ownership and type of power used, into the following classes: municipal, commercial, hydro-electric power, and fuel power stations. The statistics are given for the Dominion as a whole, and by provinces. As the analysis has just been completed and some time must necessarily elapse before the report is ready for general distribution the following brief summary of the statistics has been prepared:

The total number of stations reporting is 795, of which 515 or 64.8 per cent. generate their own power, and 280 or 35.2 per cent. are of the non-generating type. The commercial stations numbered 377, and the municipal

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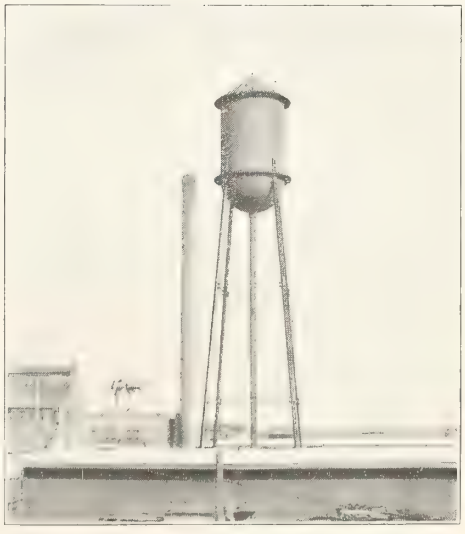
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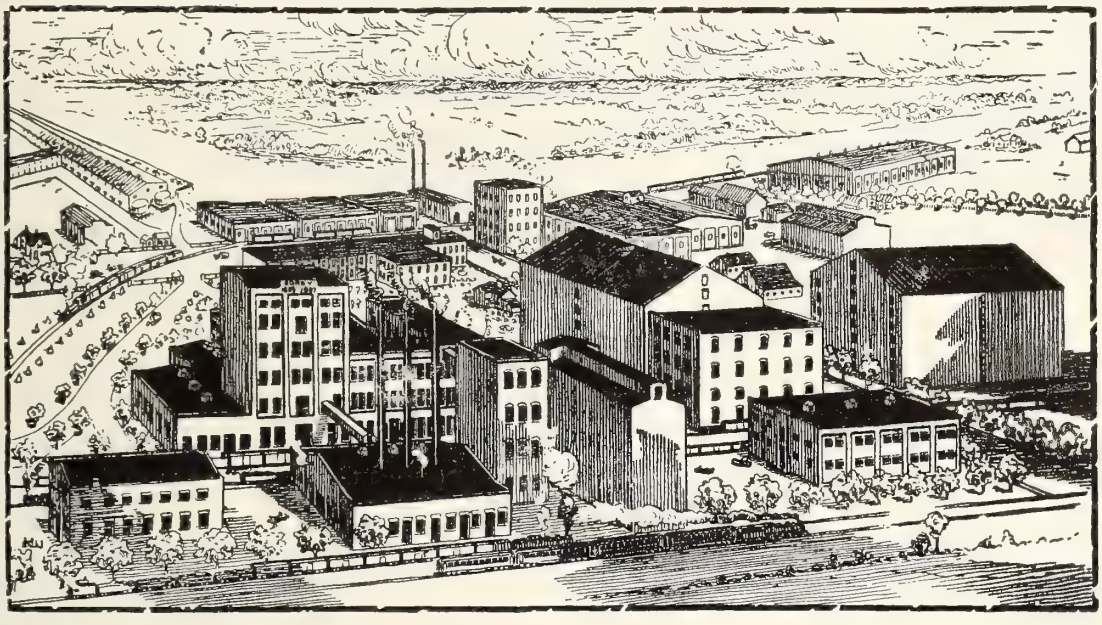
stations 118. Of the generating stations, 332 are commercial and 183 municipal, while of the non-generating stations 15 are commercial and 235 municipal. As noted in the results of the last census, the system of the Hydro-Electric Power Commission of Ontario, with its extensive distribution, selling blocks of power to local municipal commissions, accounts for a large proportion of the municipal non-generating stations.

The aggregate capacity of all primary power machines reported is 1,958,642 horsepower, of which 1,841,114 horsepower is installed in main plants and 117,528 horsepower in auxiliary or stand-by plants. Of the total for the main plants 1,434,196 horsepower or 77.9 per cent. was reported by commercial stations, and 406,918 horsepower or 22.1 per cent. by municipal stations, while of the auxiliary plant equipment, the former accounted for 110,853 horsepower and the latter 6,675 horsepower. According to source of power the total for all prime movers is divided as follows: from water 1,682,191 horsepower, from steam 262,562 horsepower, and from gas and fuel oil 13,889 horsepower.

The average primary power installation of the main plants per thousand population for the Dominion is 209 horsepower. The provincial averages on this basis are as follows: Yukon 1,135 horsepower per thousand population, British Columbia 302 horsepower, Ontario 277 horsepower, Quebec 263 horsepower, Alberta 129 horsepower, Manitoba 121 horsepower, New Brunswick 50 horsepower, Saskatchewan 41 horsepower, Nova Scotia 38 horsepower, and Prince Edward Island 14 horsepower. It is notable that the highest averages on the per capita basis occur in the Yukon Territory and the five provinces in which the greater proportion of the central electric station power is derived from water.

Hydro-Electric power is now served to practically every large industrial centre in Canada, and the rapid extension of the large distribution systems together with the active Hydro-Electric construction at present in progress is fast linking up the few centres which have hitherto derived their power from fuel. In considering the extent to which water is used as a source of primary power in this industry it is of interest to note that according to a recent census of developed water power in the Dominion 72.7 per cent. of the total is utilized in connection with the central electric station industry.

Of the aggregate capacity of all prime movers installed in the main plants 1,682,191 horsepower or 91.4 per cent. is derived from water, and including the prime movers of auxiliary or stand-by fuel plants, the hydraulic installation represents 85.0 per cent. of the total. The percentage of Hydro-Electric power in the various provinces is as follows: Quebec 98.4 per cent., Yukon Territory 97.8 per cent., British Columbia 97.2 per cent., Manitoba 95.5 per cent., Ontario 95.4 per cent., Alberta 42.9 per cent., New Brunswick 37.6 per cent., Nova Scotia 18.5 per cent., and Prince Edward Island 16.8 per cent. Saskatchewan derives 100 per cent. of its central electric station energy



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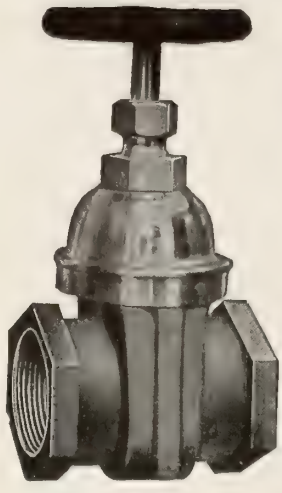
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from fuel. From this it will be seen that the first four provinces named and the Yukon Territory reported over 95 per cent. of their total central electric station power derived from water. With the completion of projected Hydro-Electric developments in Nova Scotia and New Brunswick the Hydro power percentages for these provinces will show a marked increase.

In Ontario, Quebec, British Columbia and Manitoba the steam plants which are auxiliary to Hydro developments account for 113,350 horsepower or 69.2 per cent. of the total steam power installation for these provinces. It should also be noted that for the Dominion as a whole there is installed in connection with Hydro-Electric developments 117,198 horsepower in auxiliary fuel plants.

The total number of persons reported as employed in the central electric station industry in Canada is 9,696, with salaries and wages aggregating $10,354,242. Commercial stations employed 5,690 persons at $6,137,525 and municipal stations 4,006 persons at $4,216,717. The total number of persons employed in the industry averages 5.2 per thousand installed primary horsepower, while the aggregate salaries give an average of $5.62 per installed primary horsepower. In connection with the statistics of employees'-salaries and wages, it should be noted that in a considerable number of cases employees are engaged for only part of the time in connection with the central electric station operations, the balance of their time being charged to some other work not connected with this industry. This is particularly the case in non-generating municipal stations and in composite stations where the sale of electrical energy is only incidental to some other industrial activity. In instances of this kind only that part of the salaries or wages properly chargeable to the central station industry is recorded.

The results of this census show a decided activity in the development of electrical energy for central electric station purposes. This activity is particularly evident from the reported contemplated enlargements to existing plants as well as from the new developments at present under construction and the extension of the already notable transmission systems of the larger stations.

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The Real Oppressors of the Poor*

By J. G. SULLIVAN
Consulting Engineer, Winnipeg

ONE does not have to be a student of history to know that there has existed in the old worlds up to recent times a condition which made it practically impossible for any individual to remove himself from the class into which he happened to be born. Even those of us whose fathers came from Great Britain have been told many times by father or grandfather that a gentleman was a man who did not have to work for a living, and that he was in a class by himself, protected in his holdings of land, etc., by laws of entail; and no matter how depraved he might become, the laws and customs maintained him in his position and he and his offspring existed without working. They told us that other classes were tradesmen, farmers and laborers, and that it was next to impossible for any of these to enter into the gentleman's class.

Practically all are Workers

We do not have to go very far in the Bible before we are told that God Himself said to Adam, "With labor and toil shalt thou eat thereof all the days of your life." It would not appear entirely illogical to classify the "gentleman" described above as an oppressor of the poor. Such conditions do not exist in Canada or the United States. Mention a successful rich man, and, in ninety-nine cases out of a hundred, you have named one of the hardest working men in the country. In this country we are practically all workers, and if there are oppressors of the poor we must look for them among the workers.

The radical labor leader will tell you that the arch fiend is the capitalist, without defining what he means by the word capitalist. We would not expect him to include a poor widow who may have a few thousand dollars in the savings bank, although we are not sure how he would class this same widow if she should draw out her savings and purchase war bonds or railway or other commercial stocks.

Capital is what we have saved out of what has been produced, the sole means of sustaining the life of the industrial worker, for as a matter of fact, the industrial worker, whom the radical leader tries to make you believe is the only producer, is not a producer of the real necessities of life, but rather of luxuries which follow where people have been frugal and saved up some capital which will permit them to enjoy luxuries.

False Teachings of Radicals

The real producers of the necessities of life are the farmers, and if they had been controlled and guided by the teachings of the present leaders of industrial workers, it is the writer's belief that a universal famine would exist on this earth to-day, and the first to die would be the industrial worker. The writer has no quarrel with industrial workers or their leaders, but rather with the false teachings of the radicals. For instance, it is a common teaching that the industrial worker is underpaid, and that he is producing all

* This striking article, which is published in INDUSTRIAL CANADA by request of a prominent member of the Association, appeared originally in the form of a letter to the editor of the *Canadian Engineer*. It is most desirable that members should read and familiarize themselves with the facts contained in it, for they will be of assistance in refuting many of the arguments that are being advanced by radical labor leaders.

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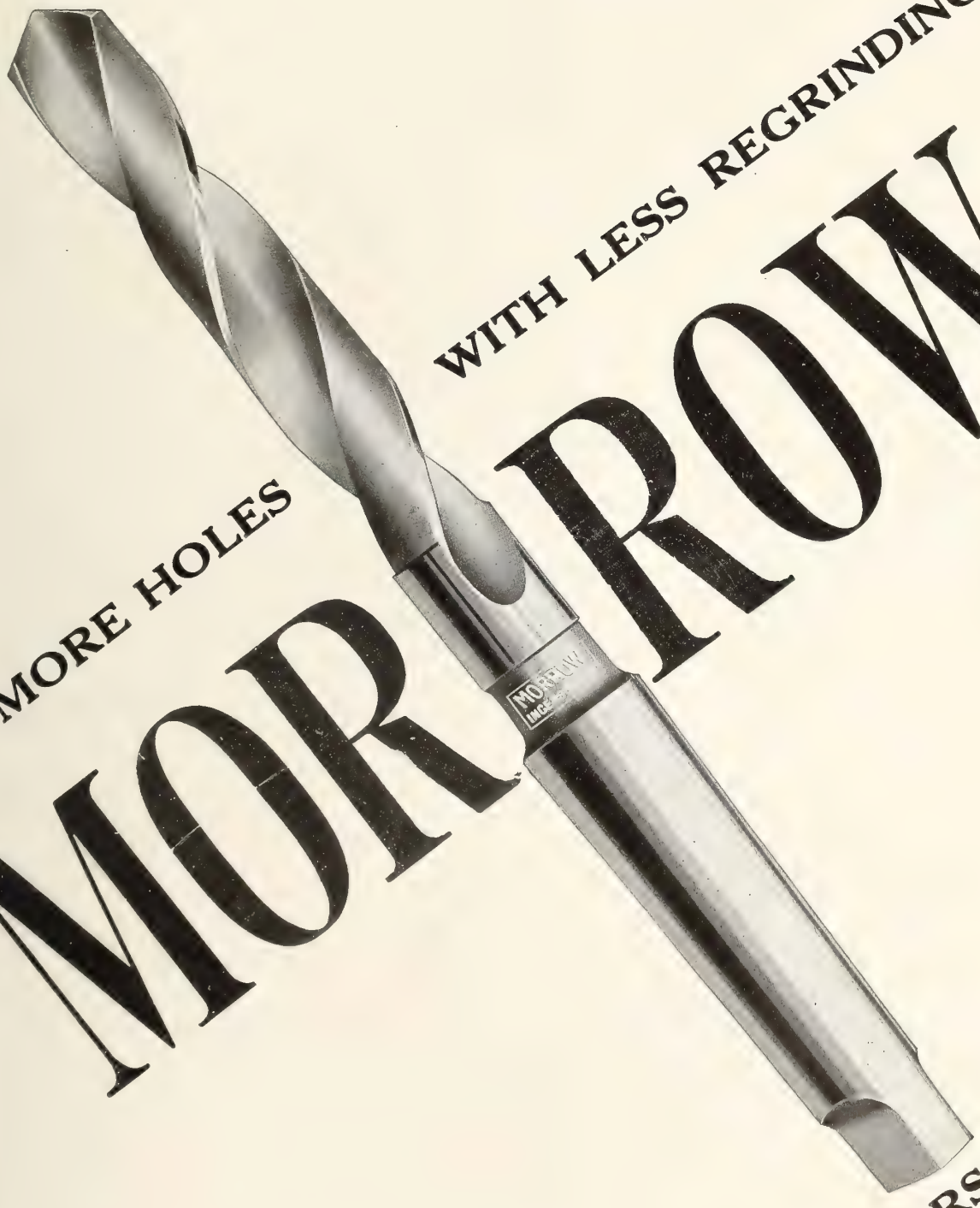


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the way from twice to twenty times the amount that he is being paid for. If that were a fact, we would expect to see the wealth of the world increasing at a tremendous rate. What are the actual facts?

The estimated wealth of the world at the beginning of the war did not exceed one trillion dollars. This consisted mostly of tools of production and maintenance used for the comfort and happiness of mankind created by capital, which in turn was created by frugality and sacrifice. The value of the world's plant has not increased during the past five years, but in all probability has decreased in actual value, although on account of the depreciation of the measure of value, those who do not wish to know or hear the truth may produce statistics to prove the contrary. They will surely ask, "Where did all the war millionaires come from?" The answer is easy: "They did not get it from what was produced during these years, for we consumed more than we produced. They made these millions at the expense of the capital of others." The world during the past five years can be compared with the thoughtless man who has a home or a farm left to him and immediately places a heavy mortgage on same, buys an auto, diamond rings for the wife and fine clothes for the children, and in general lives like a prince. When the house-servant and the man who drives the auto see such extravagance they say: "We are the only ones around here who work. All this money is coming from our labor." Then the trouble begins.

Small Wealth Per Capita

A trillion dollars looks like a lot of wealth. It is a considerable sum, but when you divide it by the number of people on earth, about one billion seven hundred millions, we get a sum that comes within the scope of the minds of most of us, namely, about $600. Whether one believes in the Bible or not, he must admit that what was said about toiling for a living is true, otherwise, after some six thousand years of toil and sacrifice, we would have accumulated more than $600 each. If we allowed no credit for the things that God put on the earth for man's use, which he could take without any exertion, and if we start with a capital of one dollar, this capital has increased at the rate of about one-half of one per cent. a year.

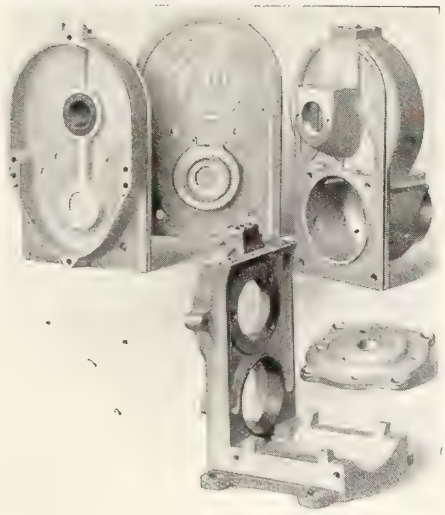
Let us take the case of the United States, a comparatively new country to civilization. The estimated wealth of the United States in December, 1917, was two hundred and twenty billions of dollars. If we assume that the accumulation of this wealth started four hundred years ago, and that the value of the natural resources, such as wild prairie lands and timber, which required no human exertion to create their present assessed value, amounted to the low sum of $100,000,000, then the increase would be considerably less than 2% per year. Further, if we entirely ignore the value of the natural resources and started with a capital of one dollar, then the increase would be less than 7% per year. But we know as a matter of fact that this latter figure is not correct, for that would mean that the wealth of the country would double every ten years.

Railway Operation as Example

Enough has been said to show how foolish is the doctrine that there is wealth enough in the world for all of us to live in comfort and ease if it were equally distributed. We must look some place else for the oppressors of the poor. The miser may accumulate millions, but they are only saved up for the future happiness and comfort of the human race; none of them are carried across the River Styx. They will continue to serve the world for years after their accumulator has been forgotten.

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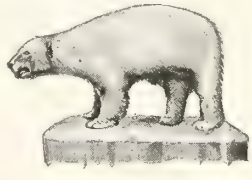
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We will assume that the average man will accept as an axiom the statements that it is impossible for the world to consume more than it produces, that the capital of the world is not large, and that the rate of increase is small and must be maintained in order to supply the means by which industrial workers can make a living. If the above be granted, then we can logically say that the oppressor of the poor is the man who consumes more than he creates.

It is a hard problem to say how much a man has a right to consume, therefore a difficult thing to lay your hand on the real culprit, but as a great majority of the industrial workers spend all they get, let us analyze the subject from the point of remuneration for services and try to find out who, if any, are being paid for more than they create.

Because the writer is more or less familiar with the railway business, and further, because of published facts of that business in the United States, we will take that industry as an example.

If the United States had not taken over the operation of the railways, and the private companies had to pay the wages that are now being paid, it is a safe guess that 50% of the railways would now be either in the hands of receivers or ready to be taken over by receivers, and the bondholders would not be getting interest on their capital. There would practically be no dividends paid on stocks—only by the very few strong companies. This burden is being carried by the general taxpayer, and I do not believe that there are very many who think that the holders of railway securities are getting what is justly due them, to say nothing about getting too much, and the majority of the people know that if 50% of the roads were in the hands of receivers that the security-holders would not be getting a just return on their capital; therefore, we can eliminate them from the class of oppressors of the poor.

The shippers of the country, whether rightfully or not, believe that freight and passenger rates are high enough. If that view be correct, the railways are being paid for all they create, and we practically have only the employees left among which to find the oppressors of the poor, if there are any in that industry.

High-Salaried Officials

The radical labor leader will at once point to the high-salaried officer and say, "There is the man." Representative Sims has published in the *Congressional Record* a list of the names of railway officials who were paid $20,000 or more per year in 1917, the last year of private operation. There were about two hundred names on this list—about one hundredth of one per cent. of the total number of employees. The aggregate amount paid these two hundred men was $6,644,074, or a little over $33,200 each per year. If the services of these officers had been dispensed with, and the money divided among the other employees, they would have each received less than $4 more per annum than they were actually paid. Surely these two hundred men were not very grievous oppressors of the poor.

Director-General Hines, on November 14th, 1919, submitted to the president of the senate a report in response to the August 20th resolution of the senate calling for information *re* rates of pay of railway employees. (For further and more detailed information, see *Railway Age*, October 3rd, 10th; November 7th, 14th, 1919.) The figures in this report show that several classes of organized labor are receiving as much and in some cases more than is being paid to the division officers.

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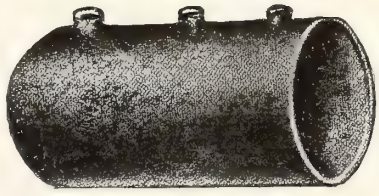
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Recently, in speaking to a railway superintendent who had formerly been a locomotive engineer, I was told that on account of the depreciated value of the dollar, it was getting next to impossible for him to make both ends meet—he had to dress well and keep up his end in a small town, and was finally compelled to sell his automobile to one of his locomotive firemen.

Organized Labor Taking All

He said, further, that he did not see how the company could afford to raise his pay, for if they did, then they would have to raise the salary of thousands of others who were unorganized, and he did not see how it could be done, as organized labor is taking all and more than the company can afford to pay. He asked and answered this question: "Do you think it is just that a locomotive engineer should get more pay per month for working seven to nine hours per day, three or four days a week, than I receive for working seven days a week and from ten to twenty hours per day? Whom do you consider is the greater producer." The answer was: "He has the advantage over me that he has back of him the brute force of a large combination; and still they talk about the wrongs of the poor and brotherly love! I cannot understand how a locomotive engineer that preaches such doctrines, and in some cases draws from $2.50 to $3 per hour for actual time worked, can look in the face of his autodriver, whom he pays at the rate of thirty to forty cents per hour, when he knows that it requires more brains, five times as much energy and more responsibility to drive an automobile than it does to drive a locomotive." He concluded by adding: "I know what I am talking about, because I am speaking from several years' of experience in this business."

See the *Railway Age* for October 3rd, 1919, for an account of the testimony of Timothy Shea, acting president of the Brotherhood of Locomotive Firemen, before the United States Board of Railroad Wages and Conditions. Asked if the question of thrift did enter into the situation, Mr. Shea said he did not think it was possible for working people to curtail expenditures any more; that the men he represents are living "right on the margin" and depriving themselves and their families of the necessities of life.

"Do you represent any men who are buying automobiles and those things?" asked Mr. Morse.

"I do not hear of any firemen, or many firemen, buying automobiles," replied Mr. Shea.

"You would not regard an automobile as a necessity, would you?" asked Mr. Morse.

"Yes, I would."

"Well, I have denied myself a necessity all my life, then," said Mr. Morse, who was general manager of a railroad before becoming a member of the wage board.

No Sacrifices by Organized Labor

"An automobile may be a necessity to any man," said Mr. Shea. "I have an automobile, and it is a necessity to me and my family to a considerable extent. That would apply with equal force to any man, and I think we have reached a period of our life where the laboring man must enjoy some of the necessaries and luxuries of life. I do not think the time is at hand when the American working man should be required to make any great sacrifices now. They have made their sacrifice."

The writer does not care to dispute Mr. Shea's testimony: he would only be too glad to approve of the idea if the production of the world to-day were such that it would permit of every fireman and every other man doing like work to enjoy the luxury of an automobile; but unfortunately that is not the condition at the present time.

Now as to the real oppressors of the poor. The reader can draw his own conclusions; the writer is not interested;



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his idea of sport is a fair "free-for-all," but as the radical labor leader has so much to say on this subject, the writer cannot refrain from pointing out the fact if, through brute force of large combinations, organized labor can increase their pay only 20% above what they are producing, they are oppressing their unorganized brothers to that extent.

The radical will reply that the answer is for everybody to be organized, but that is a fallacy, for with everybody effectually organized excepting the high-salaried officers, there would be left to divide only the $4 per man that was paid to the high-salaried man, and the wages of the auto-driver would be equal to those of the locomotive driver, and the latter would be considerably reduced from what they are now.

The Real Oppressors

We know that the radical has not got that $33,200 to two hundred officials out of his mind, so let us take a concrete example. Supposing, for the sake of the example, that brains, energy and ability do not count, and that these men are each getting ten times what they should receive. Then they are oppressing the poor to the extent of the wages of nine times 200, or 1,800 men. But if a million organized railroad employees are getting 5% more than they are entitled to, they are oppressing the poor by a million times 5%, or the wages of 50,000 men. The reader can draw his own conclusions as to who are the real oppressors of the poor.

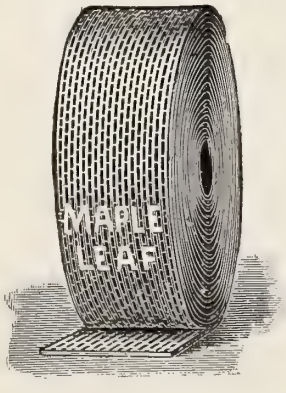
The sooner labor leaders realize that the industrial workers of the world cannot lift themselves very far by their own boot-straps, the better it will be for the workers as well as everybody else on this earth. At the beginning of the war it was only natural that the law of supply and demand would somewhat increase the price of wheat, meats and materials required for war purposes, but all can remember how soon the labor leader who shouts so loud, about the crime of treating labor as a commodity did that same thing and took every advantage of the law of supply and demand. We saw war munition and shipbuilding workers getting from 75c. to $1.25 per hour, and five to ten times these figures in some cases where they actually exerted themselves and did piecework. At the same time other equally skilled tradesmen, such as carpenters or painters, were actually working for from 35c. to 55c. per hour, and to the writer's mind this was the major factor in starting old H. C. L. on his way. Other tradesmen and laborers could not be expected to be contented under the circumstances and the trouble began.

Industrial workers attempted to do the impossible—to get two or three times the value of what they produced—but another natural law took partial care of that hold-up: The value of the measure of "value" depreciated, and the industrial worker, instead of getting what he wanted, only succeeded in getting a relatively small percentage at the expense of unorganized labor and of those straight-salaried men whose salaries did not go up in the same ratio that the value of the dollar went down.

Money is only a medium of exchange, and the fluctuation of its value is incorrectly interpreted as the high or low cost of everything else. Here on the prairie we can build a mile of railroad to-day cheaper than we could twenty years ago if one measures the cost in what we are producing, namely, bushels of wheat.

There is just one real remedy for all this industrial trouble; that is, more production. When the organized industrial workers realize that fact and change their present ideas of getting as much money as possible for the least amount of time and smallest amount of output, to working a reasonable amount of time to the limit of their ability and capacity, the sooner will they be able to enjoy, rightfully and more universally, the privilege of going to and from their labor in their own automobiles.

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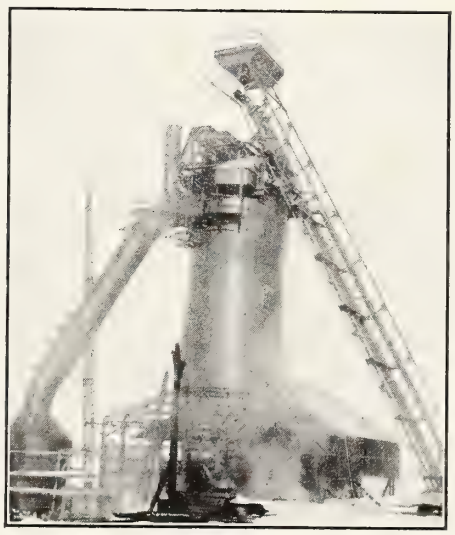
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Making Wages Elastic*

How Index Numbers Enable the Employer to Adjust Wages to Rising Prices of Commodities

By R. H. TINGLEY

THE index number, as we commonly know it, is the sum or average of the prices of a large number of commodities more or less essential to our existence. If the index number is to be a faithful record of fluctuations, it is obvious that the prices of the chosen commodities must be assembled on certain periodical dates. The totals or averages obtained will thus indicate the average percentage of rise or fall in prices during a given period.

Index numbers have been in more or less constant use since they were first invented by G. R. Carli, an Italian, who attempted to discover by their use the effect of an abnormal quantity of gold money upon rising prices.

Carli's researches stimulated others, and we find frequent reference to index numbers both in European history of the eighteenth century and in our own colonial records. For example, Washington's army was paid in provisional notes the face value of which moved up or down according to the market price of a few essential commodities.

There are now maintained no fewer than five separate systems of index numbers in the United States: Dun's, Bradstreets, Gibson's, The Annalist's and that of the United States Department of Labor. In England there are three, that of the "London Economist" being, probably, the oldest. Almost every other civilized country, too, maintains its own separate set or sets.

Index numbers have been used by statisticians, librarians, economists and historians in many ways for a century or more. In all of these uses, however, their influence is somewhat indirect, and their application belongs rather to the realm of the academician than to that of the every-day business man.

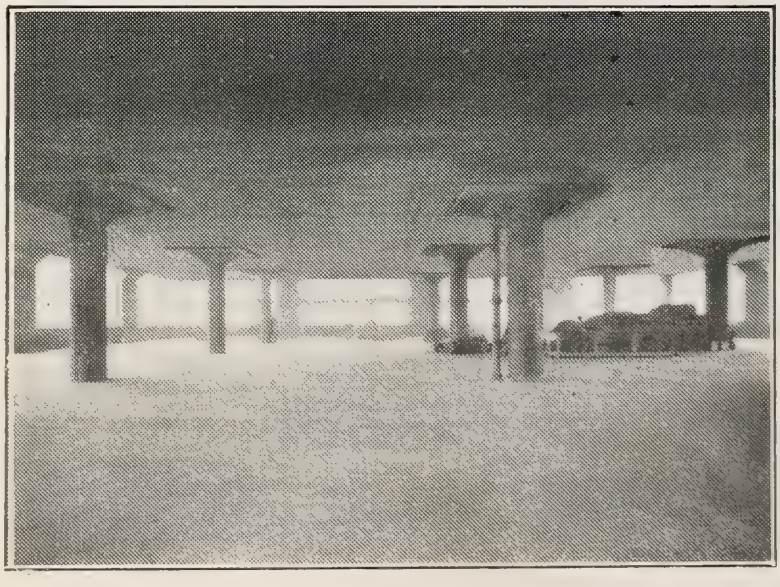
But with the war the business man has taken up the practical application of index numbers to business. The cost of living has been mounting. Wages had to be raised to meet it, but the raising of wages is not always desirable except when the higher figure can be maintained. Business, therefore, has devised a method of adjusting wages to rising costs of living, a method based on changes in commodity prices as revealed by index numbers.

One of the first enterprises to inaugurate a system of adjusting wages to the rising cost of living was the Oneida Community, Limited, manufacturers of silverware, at Oneida, New York. The High Cost of Living Plan, as it was called, was put into operation in January, 1917. For a basis it went back to January, 1916, when a general advance in wages placed the employees in position to share the Community's prosperity.

An estimate based on the living expenses of a large number of families of differing sizes and incomes revealed the fact that during 1916 the cost of living increased 16 per cent. The company announced that each worker would receive an additional pay envelope every month thereafter, this envelope to contain the additional wage resulting from the new system. The additional wage would vary from month to month; every twenty points of change in Bradstreet's

*This suggestive article appeared in the May issue of *Business*, the bright little monthly magazine, published by the Burroughs Adding Machine Co., Detroit. It is reprinted in INDUSTRIAL CANADA by request of a well-known Ontario member of the C.M.A.

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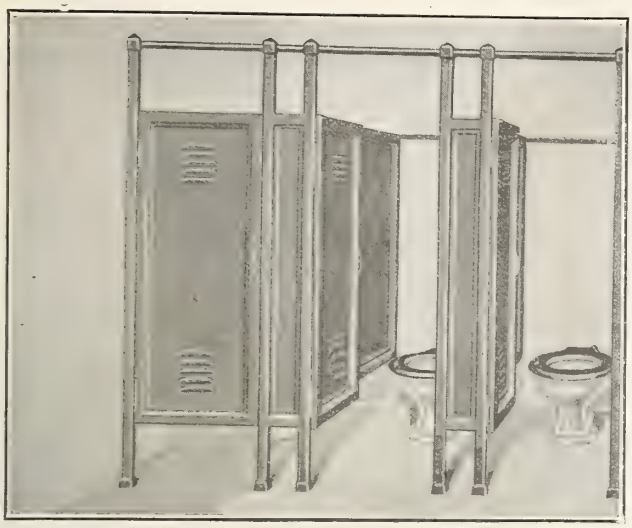
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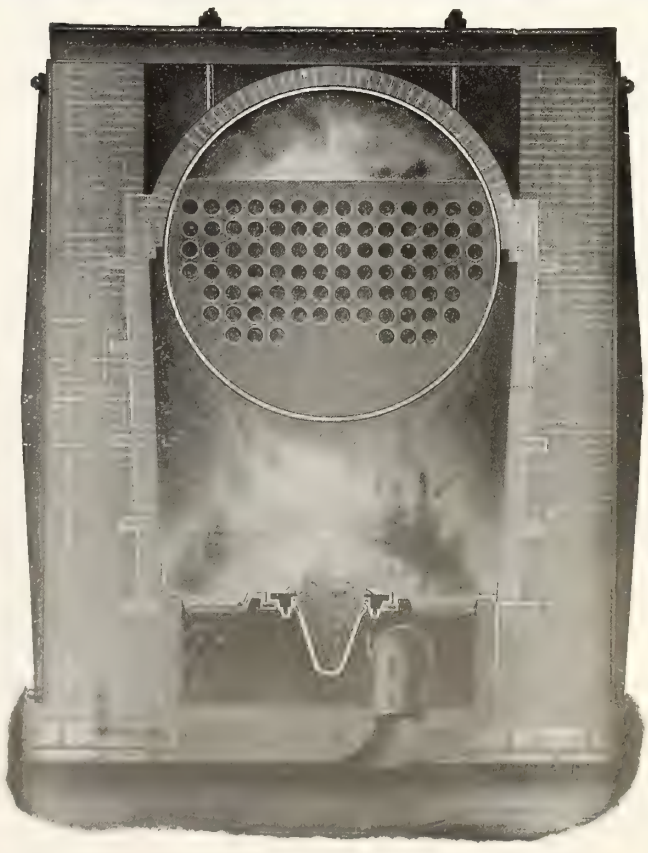
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index number would be assumed as indicating a change of 1 per cent. in the cost of living.

For thirty-six months these special High Cost of Living envelopes have been maintained. The index figures and extra rates of pay have been, month by month, as follows:

Month	Index No. of preceding Month	H. C. L. Percentage.
1917.		
January	13.68	16
February	13.73	16¼
March	13.93	17¼
April	14.13	18¼
May	14.58	20½
June	15.12	23¼
July	15.47	25
August	16.07	28
September	16.40	29½
October	16.64	30¾
November	16.91	32
December	17.07	32¾
1918.		
January	17.81	36½
February	17.96	37¼
March	18.08	37¾
April	18.07	37¾
May	18.74	39¾
June	18.91	42
July	19.00	42½
August	19.18	43½
September	19.11	43¼
October	19.05	43
November	19.02	42¾
December	18.91	42¼
1919.		
January	19.04	43
February	18.54	42½
March	17.63	36
April	17.22	33¾
May	17.28	34
June	17.24	33¾
July	18.09	38
August	18.89	42
September	20.00	47½
October	19.47	45
November	19.52	45¼
December	19.90	47¼

In the experience of the Oneida Community covering a period of two and a half years the H. C. of L. envelope has fully covered increases in the living costs of its employees and has given the Community great confidence in the practical value of the figures used. The employees have all felt that, however high prices of flour or potatoes might go, their wages would increase to cover the increased cost.

Last spring there occurred a substantial fall in commodity price-levels as reflected in the index numbers. This resulted in an automatic reduction in the size of the H. C. of L. envelope.

The Oneida Community reports that the employees accepted this reduction without a murmur as a matter of course.

A. M. Kinsley, general manager of the Community, says:

"The High Cost of Living plan was not designed to be permanent. It has served as a bridge to carry a much more ambitious plan of industrial partnership across the difficult period of war. Whether from it shall arise a basis for a permanent system of automatic wage adjustment, belongs to the future."

The Schwarzenbach-Huber Company, silk manufacturers, of West Hoboken, N.J., also uses the Bradstreet index numbers. It takes the index for one month and uses it as the basic figure, 100 per cent. An increase or decrease on that

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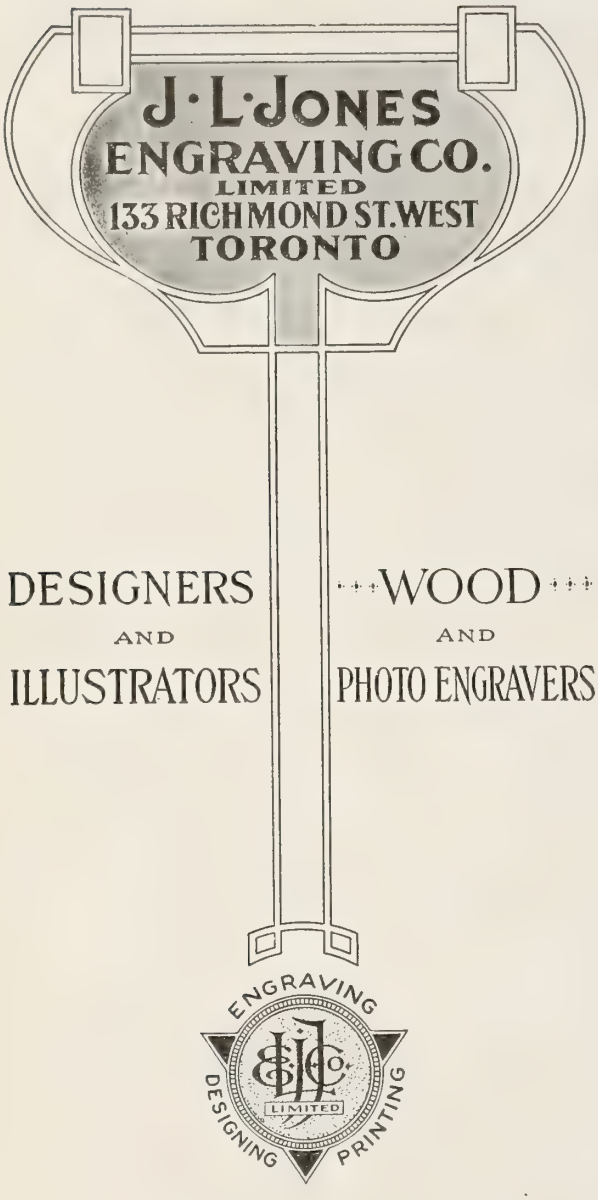


figure occurring during the ensuing months is figured as per cent. of increase or decrease on the basic figure. For example:

	Index
August, 1919	20.0017
Basic figure, July, 1919	18.8964
Increase	1.1053

1.1053
———— equals 5.85 per cent., the increase.
18.8964

As the increase for August over July was 5.85 per cent., the employees received a bonus of 5.85 per cent. As Bradstreet's issue in one month covers the index for the previous month, the increase for any month is given in the following month.

Carefully avoiding the use of the adjective "high," Barker, Rose & Clinton, hardware merchants, of Elmira, N.Y., have adopted what they call the "Cost of Living," or "Index Number," wage plan. Omission of the word "high" paves the way towards self-protection when the inevitable drop in prices comes—as it will—some day. A. Clinton, of this firm, says:

"'The Cost of Living,' or 'Index Number,' wage plan seems to be a scientific solution of the wage problem: its success depends upon mutual confidence."

As the cost of living advanced, Barker, Rose & Clinton tried many modifications of the arbitrary bonus plan, but found each unsatisfactory. They finally adopted their index number plan based on Dun's system, and have been using it since July, 1919. Their plan works out something as follows:

Suppose an employee was receiving $25 a week during July. Dun's index number for July, 1919, was 233. By August 1 the index number had increased 8 points, or to 241. This increase, reduced to a fraction, is 8/233, or to a decimal, is .0343. The employee's weekly wage of $25 is multiplied by the decimal increase, giving a result of 86 cents. This particular employee's weekly wage for the month of August therefore was $25.86. In September, 1919, the index number of Dun had dropped to 238, or 3 points below August. This represents a decimal drop of .0124, which, multiplied by the employee's previous wage of $25.86, gave him for his September work $25.54 a week. This is a very simple plan and the hardware firm is confident that it has solved its wage problem.

The Union Bleaching and Finishing Company, of Greenville, S.C., has been using the index number system in wage adjustments in its factory for more than a year with satisfactory results. The executives are frank to admit, however, that they do not know exactly how the system will stand under a heavy price decline, but they feel quite sure if it were in universal use there would be no trouble when prices and wages fall.

Mr. R. W. Arrington, secretary, writes:

"We are using as a basis the Bradstreet index number covering not his entire list but his six first items which cover the necessities of life and articles which are used by everybody in every-day life. These six, as I remember them, are breadstuffs, provisions, fruits and produce, meats, hides and leather and textiles.

"We take as a basis the cost of living on January 1, 1916, and show a percentage over that figure of what the cost of living is to-day. We started by paying our people in two separate envelopes: one contained the basis of what they were receiving on January 1, 1916, and in another envelope the additional amount covering 95 per cent., 100 per cent., 103 per cent. or whatever percentage of that basic figure the index number happened to show. We have discontinued the two-envelope system, however, and put all the money in one envelope, but insert slips showing how much money is represented by the index number."

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At the head of the Index Visible, Inc., of New Haven, Conn., which makes visible card index systems, is Professor Irving Fisher as president. Since Professor Fisher occupies the chair of political economy at Yale University and is one of the advanced thinkers along economic lines, it might be expected that his company would have worked out a scientific method of applying index numbers to its wage problem And apparently it has done that very thing.

Professor Fisher's company uses the index numbers of the United States Bureau of Labor Statistics. With this as a basis, to arrive at its own index number, it assumed that its pay-roll at the first of July, 1918, was properly adjusted to the price-level for the period of the first six months of that year. It therefore took an average of the Government index numbers for that period, resulting in an index number of 158, which it uses as a standard. It then divides the Government's monthly index number by the standard number, 158, to get the per cent. to be contained in the H. C. of L. envelopes for each month. For example, in July, 1918, the Government index number had risen to 167. an increase of 5.7 per cent., which accordingly became the percentage of addition for that month.

The Index Visible, Inc., pays its employees their additional wages in a separate H. C. of L. envelope.

E. D. Keith, assistant treasurer of the Index Visible, Inc., writes:

"Our employees are mostly intelligent office help. In the factory we have only one or two who do not understand the system at the outset.

"If the cost of living should go below our standard index number, we would plan to take our chances with all manufacturers in reducing the wage scale, if that became necessary.

"The system appeals to us as being just to the individual and hence a protection to the company in reducing turnover by establishing a reputation for fair dealing."

The Mishawaka Woolen Manufacturing Company, of Mishawaka, Indiana, uses Bradstreet's index number. At the time of inaugurating its plan, in February, 1918, this company was already paying its employees a 10 per cent. bonus on account of the high cost of living. Its new plan was therefore called an "extra bonus" plan. It resembles, in operation, the plan previously adopted by the Oneida Community. The results of its experiments, however, are instructive and I quote them as I received them from L. T. McCollum, of the Mishawaka Company:

Period Ended.	Paid.	Rate.	Index Number.
Feb. 23, 1918	Mar. 29, 1918	7 %	17.9636
Apr. 27, 1918	May 29, 1918	11¾%	18.9133
June 29, 1918	July 25, 1918	13 %	19.1849
Aug. 31, 1918	Sept. 26, 1918	12½%	19.0485
Oct. 26, 1918	Nov. 27, 1918	11¾%	18.911
Dec. 28, 1918	Jan. 30, 1919	10 %	18.5575
Feb. 22, 1919	Mar. 27, 1919	6¼%	17.8139
Apr. 26, 1919	May 28, 1919	10 %	17.2376
June 28, 1919	July 24, 1919	11¾%	18.8964
Aug. 30, 1919	Sept. 25, 1919	14½%	19.4720
Oct. 25, 1919	Nov. 26, 1919	16¾%	19.9026

Mr. McCollum writes as follows:

"Our extra bonus plan worked very satisfactorily while the bonus was increasing in size, but became less satisfactory as it became smaller, and when it fell below 10 per cent. it caused quite a little dissatisfaction."

The Printz-Biederman Company of Cleveland, Ohio, manufacturers of "Printzess" suits and coats, is the only one to my knowledge that has tried the index number wage plan and abandoned it. Their plan was adopted January 2, 1918, and discontinued November 17, 1918. The reasons for aban-

STEEL BARS

ROUNDS, SQUARES, FLATS, ANGLES AND SPECIAL SECTIONS FOR AGRICULTURAL IMPLEMENTS

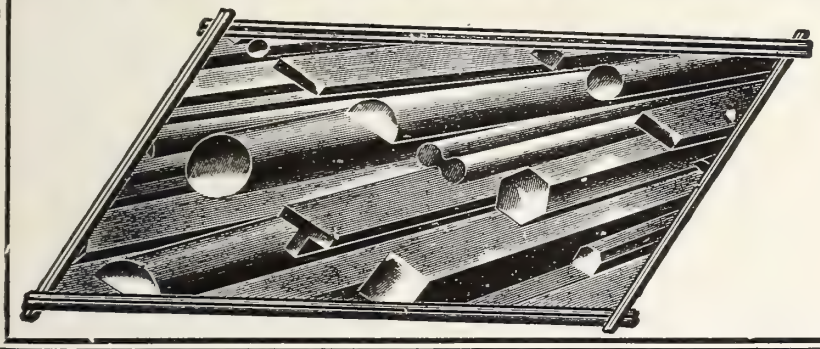
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WROUGHT PIPE BLACK AND GALVANIZED 1/8 TO 4 INCH

Thoroughly inspected and tested to 600 lbs. pressure and branded

Ask Your Jobber for

Brand

Also BOLTS, NUTS, RIVETS—All Kinds

PRESSED SHIP SPIKES, BLACK AND GALVANIZED—All Sizes

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Wires, Wire Nails, Wood Screws, etc.

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Than any other wheels on the market



OUR NEW MODERN PLANT

Tell us the service you want performed and we will supply you with an abrasive wheel that will save you time, money and worry.

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The
Bennett & Wright
Company, Limited
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doning the plan, as stated by Arthur C. Hoffman, factory manager, are:

"Because our employees never looked upon it as a regular part of their wages: when they would explain to you how much they were receiving they never would figure in this amount.

"As long as the price of commodities was going up and the index figure went up the employees were satisfied, but we knew that whenever the price went down they would be correspondingly dissatisfied and would feel that something was taken away from them.

"Our experience had shown us that extra dividends that are not included in the weekly wage do not accomplish the purpose for which they are intended. They neither stimulate production nor satisfy the worker.

"Since that time we have made a study of scientific standards and have been able to pay our employees more money as they produced more. Besides this, our wage rate committee, which meets once a week, controls the minima on all operations, so that our wages have also been, in this particular shop, higher than any other place in the industry."

It will be seen that the science of making practical a use of index numbers, as a basis for computing wages, is yet in its infancy. Except for the incident of Revolutionary days, 140 years ago, no serious attempt seems to have been made in this direction until the recent war.

The experiences quoted, with the one exception, all point to good results. Nearly all, however, suggest the thought that there may be a different story to tell when prices fall.

Abitibi Power and Paper

New Bond Issue Being Made to Redeem Debentures and Provide New Capital

An issue of 6 per cent. general mortgage sinking fund gold bonds amounting to $4,000,000 is being made by the Abitibi Power & Paper Co., Limited, through the Royal Securities Corporation. These bonds are dated Jan. 2, 1920, and mature Jan. 2, 1940. The proceeds will be used in part to redeem outstanding 7 per cent. debenture issues aggregating $1,900,000. The balance will be used for the immediate development of Twin Falls water power and the construction of additional mill buildings, etc., and the installation at Iroquois Falls of two 85-ton and one 60-ton newsprint paper machines and one 35-ton wrapping machine. The bonds are offered at 92.50, and interest yielding about 6.70 per cent.

Riordon Pulp & Paper

Company to Consolidate With Kipawa Fibre Co., in New Riordon Corporation

Another Canadian pulp and paper company is to be reorganized. It is now proposed to incorporate the Riordon Corporation, Limited, which will form a holding company for the present Riordon Pulp & Paper Co., Limited, and its subsidiary, the Kipawa Fibre Co., Limited.

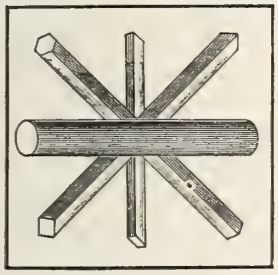
The consolidation of the two companies through the medium of the new Riordon Corporation, Limited, is to be effected as follows: The new corporation is to assume the funded debt of the Riordon enterprise and in exchange for the outstanding $1,500,000 7 per cent. cumulative preference stock will issue and pay into the present company's treasury a like amount of 8 per cent. cumulative preferred shares. Against the present $6,000,000 common issue there will be paid to the holding company $9,000,000 par value of 7 per cent. cumulative preferred stock, carrying full voting rights and convertible into common shares, and in addition $12,000,000 of common stock of the new company.

Thus the present company will hold on behalf of its shareholders an actual amount of 8 per cent. preferred stock to that carrying 7 per cent., presently outstanding, while 1½ shares of 7 per cent. preference shares and two common



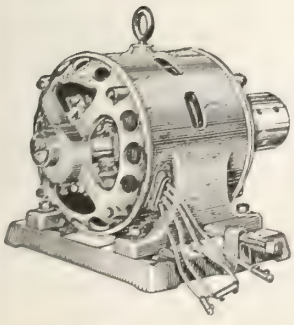
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The Dominion Wire Rope Company, Limited
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ROUNDS, SQUARES, HEXAGONS AND FLATS
$\frac{1}{8}$ in. to 6 in. Dia. $\frac{1}{4}$ in. to $2\frac{1}{4}$ in. $\frac{1}{4}$ in. to $2\frac{1}{4}$ in. up to $1\frac{1}{2}$ in. x 3 in.
FREE CUTTING SCREW STOCK PISTON AND PUMP RODS FINISHED KEYS
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RAILWAY AND HIGHWAY BRIDGES
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MOTORS
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Agencies in the leading countries of the World.
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THE FOLLOWING MOTORS

60 Cycle, 2 Phase, 220 Volts.

1 10 hp. C.G.E., 1200 rev., base and starter, N.V.
1 7½ hp. C.G.E., 1200 rev., base and starter, N.V.
1 10 hp. T.H.E., 1800 rev., base and starter, N.V.
4 1 hp. T.H.E., 1800 rev., base.
2 ½ hp. T.H.E., 1800 rev.
1 ½ hp. Wagner, variable speed, 1200 rev., slip ring, with C.H. regulator.
1 3 hp. Wagner, variable speed, slip ring, 900 rev., with C.H. regulator.

60 Cycle, 1 Phase.

4 ½ hp. Wagner 110/220 volt, 1800 rev.
2 1 hp. Wagner 110/220 volt, 1800 rev.
2 1 hp. St. Louis, 1800 rev., with starting switch.
2 ¾ hp. St. Louis 110 volt, 1800 rev.
1 1 hp., Wagner 110/220 volt.

60 Cycle, 3 Phase.

1 7½ hp. All. Chal., 1200 rev., 220 volt, base, starter N.V.
1 7½ hp. C.G.E., 1200 rev., 220 volt, base, starter N.V.
2 5 hp. C.G.E., 1800 rev., 550 volt.

25 Cycle, 3 Phase, 220 volts.

1 10 hp., 1500 rev., T.H.E., with starter N.V. and base.
1 15 hp., 750 rev., rewound, with starter N.V. and base.
1 25 hp. C.G.E., 750 rev., with starter N.V. and base.
1 3 hp. C.G.E., 1500 rev., rewound.
1 1 hp. C.G.E., 750 rev.
2 1 hp. Westinghouse, 1500 rev.
3 1 hp. T.H.E., 1500 rev.
1 2 hp. Westinghouse, 1500 rev.
1 10 hp. Wand W., 1500 rev., base and starter N.V.

25 Cycle, 3 Phase, 220 Volts.

1 10 hp. Lanch, 750 rev., base and starter N.V.

1 Phase, 25 Cycle.

1 2 hp. Peerless, 110/220 volt.
2 ¾ hp. St. Louis, 110 volt.
2 1/6 hp., 110 volt.

Toronto and Hamilton Electric Co. Limited
HAMILTON, ONT.

Waterous

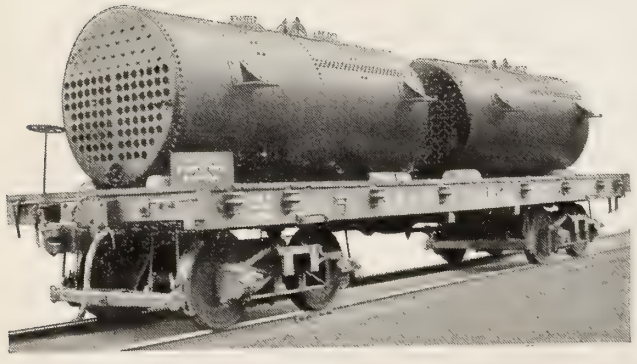
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BOILERS IN STOCK FOR IMMEDIATE SHIPMENT

2—48″ x 14′ 3—54″ x 14′
7—60″ x 14′ 5—72″ x 18′

CATALOGUES ON REQUEST



The Waterous Engine Works Co., Ltd. BRANTFORD CANADA

shares will be received for each share of Riordon common now in existence.

Shareholders of the Kipawa Co. are to receive 1½ shares of the common stock of the new company on the surrender of each share of the present securities.

Estimating One's Value

A Self-Test Which The Canada Foundries & Forgings Limited Have Devised

The questionnaire reproduced herewith is a device which the Canada Foundries & Forgings, Limited, have worked out to enable their employees to apply a test to their all-round

What's Your Score?

CANADA FOUNDRIES & FORGINGS, LTD.

PERFECT SCORE	*ON THE LEFT is a value placed upon each factor or quality which make a perfect score. ON THE RIGHT—just fill in your own self estimate.*	MY SCORE
20	LOYALTY Has every business act of mine been executed with the full belief that it was for the best interest of the firm? Do I realize that the firm's reputation is in my hands? Is my heart in my work?	
5	PROMPTNESS Have I been at my place and assumed my duties promptly at the appointed hour? Do I put things off or do it "now"? Do I realize the importance of timely action?	
15	AMBITION Am I doing my work the best way it could or should be done? Do I seek or avoid responsibility? Do I ever create new ideas or suggest improvements?	
10	CONCENTRATION Do I keep my mind strictly on my work or am I wavering, intermittent and wasting time on hobbies? Do I realize the value of constancy?	
15	ACCURACY How many of my mistakes do others have to correct? Do I appreciate the importance of accuracy?	
5	SPEED Do I think and work quickly or do I hesitate and loiter? Do I use pluck, grit and pep, or am I timid? Do I realize the possibilities of spare moments?	
10	EXPERIENCE Have I been with this firm long enough to learn my work and have I mastered it? Am I continually bothering others for information about my work or am I giving them advice? Have I an objective in life or just working here?	
10	NEATNESS Do I carry every detail through to its final logical conclusion? Am I careless of detail?	
10	HEALTH Am I keeping myself physically fit or am I occasionally absent on account of sickness or other reasons? Who does my work when I am absent? Does it cause any friction or inconvenience?	
100%	PERFECT SCORE	MY SCORE

Sign here and keep for future comparison.

efficiency. It is not intended that the score be turned in to anyone in authority. It is rather a personal confession on the part of the employee to be made out and kept for his own benefit. In about six months the company will probably issue a second card, so that each individual will be able to check up improvement. The scheme, if it is conscientiously handled by each employee, should do a lot of good.



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We have a new line of Hemp Twine which we especially recommend for either light or heavy parcelling.

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MANUFACTURERS OF

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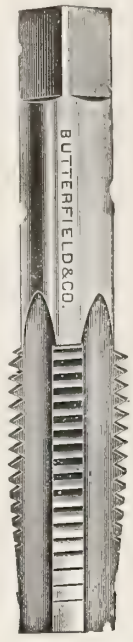
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in TAPS, DIES and REAMERS



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Made in Canada

BUTTERFIELD & CO.
Division Union Twist Drill Co.
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Book Reviews

A Fire Prevention Report

First Annual Report of the Ontario Fire Prevention League, Inc. Toronto: Printed and published by A. T. Wilgress, printer to the King's Most Excellent Majesty, 1919.

This small volume of 56 pages gives a verbatim report of the proceedings at the meeting held in Toronto on September 4th last. The aims and objects of the League are such as to commend themselves in a very special way to manufacturers, and it is gratifying to find that a number of prominent members of the C.M.A. are interested in the organization. The report has a special value as being the medium through which an important illustrated address on "Dust Explosions," delivered by Dr. H. H. Brown, Explosive Section, Department of Agriculture, Washington, is made available to the public. Accompanying the report of this address are a number of very impressive photographs which bring home to the reader the appalling effect of these disasters. The League is in affiliation with the Ontario Fire Marshal's office, and Mr. George F. Lewis, Deputy Fire Marshal, is secretary-treasurer.

Statistics on Canada

The Royal Bank of Canada Fiftieth Annual Report, 1869-1919. Head office: Montreal.

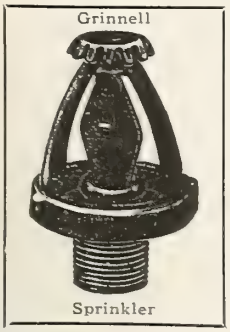
Special interest attaches to this particular report of the Royal Bank of Canada in that there has been included in the contents of the book a lot of valuable statistical information about Canada, here gathered together in convenient form. Commencing with an account of conditions in 1869 and a contrast of these conditions with those of 1919, the compilation proceeds to furnish information about the area, population and finances of Canada, the production of grain and flour, the extent of trade, the mineral and forest production of the country, traffic returns, census, tariff, etc. There is no doubt that all this information will prove of service to any one in search of knowledge about Canada.

Valuable Reference Work

The "A B C" Lumber Trade Directory, 1920. Edited by J. H. Hamilton. Progress Publishing Co., Limited, Vancouver. 180 pp., cloth bound. $3.00.

The third edition of this useful reference book reflects the improved condition of the lumber industry in British Columbia, being larger and more complete in many particulars. The data relating to lumber and shingle mills is more complete than before, details being given in each case of ownership, output, lines manufactured, shipping point and so forth, which show at a glance the desired business information required. As compared with the 1918 edition, there have been very many changes of ownership of existing mills, and many new ones have commenced business, all of which are noted in the new directory. A full list of logging camps operating this season is included, as also is information regarding wholesalers, log brokers, timber cruisers, and other lines of business connected with the trade.

The section dealing with the timber laws has been brought up to date, including the 1920 amendments, making this a handy reference book in this respect, the copious index making it easy to find the sections wanted. The section dealing



Save Fifty TO Ninety Per Cent.

of your insurance premiums and eliminate all fire worries by having us protect your factory and its output with an

Automatic Sprinkler System

Your savings in insurance premiums buy the complete system on our participating plan.

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We do all kinds of hot and electro galvanizing for the trade. Our plant is one of the largest in Canada and our charges reasonable.

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The Consolidated Mining and Smelting Co., of Canada Limited

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Ontario Sales Office: C.P.R. Bldg., Toronto

with customs tariffs on lumber imported into foreign countries has also been brought right up to date, a no light matter, we should imagine, considering the great number of changes which have occurred recently.

There is also a technical and statistical section, well illustrated, giving short, concise descriptions of the various trees and lumber of the province, and a mass of statistical information showing quantities cut and exported, and other like information made useful by an index.

New Road Guides

Appleton's Road Guides. Authentic information for motorists, cyclists and travellers, in convenient form. Toronto: The Musson Book Co., Limited. 50 cents each.

These admirable pocket road guides will be found of real service to the motorist, for they contain not only very complete maps but much supplementary information about motor vehicle laws, customs regulations, etc. There are four in the series, the first taking in the district between Windsor and Sarnia and Niagara Falls and Toronto, or the southern section of the Western Ontario peninsula; the second, the district between Lake Huron and a line drawn through Belleville and Tweed; the third, the district east of Belleville to Pembroke and Montreal, and the fourth, the Province of Quebec. In each case one large map gives the western half of the district, and a second map the eastern half. The main travelled roads are indicated in color and are based on information supplied by the leading automobile clubs of the district. In addition to main roads, the maps include all cities, towns, villages, railroads, electric lines, townships, boundaries, lakes, rivers, concessions and side roads. In fact, they are most complete and being printed from new plates are very clear and dependable.

A Voluminous Catalogue

A new general catalogue—No. 20—has just been issued by the Canadian Fairbanks-Morse Company, Limited. It is a stupendous piece of work extending to nearly 1,000 pages of closely-printed matter. Bound in boards and printed on thin paper, this immense quantity of information about the various products of the company has been compressed into serviceable dimensions and the book will be found quite easy to handle and refer to. There is a general index at the back, but this is supplemented by a finger index, which enables the seeker for information to look up any particular section without delay. In addition there is a useful department devoted to engineering data of all sorts. In their preface the company state that much of the matter in the catalogue has had to be presented in condensed form and it has been necessary to omit a good deal, but correspondence is invited in cases where special information is not to be found. Altogether this is a volume which should be at the right hand of every purchaser of mechanical goods.

The Dundas Linen Mills Co., Limited, Iroquois, Ont., have completed the addition of enough looms to increase their output by about 50 per cent. The company manufacture crash towelling, glass cloth, table damask, napkins, towels, etc.

The American La France Fire Engine Co. of Canada, Limited, are erecting an addition, 75 x 125 feet, at their plant on the Weston Road, Toronto. This will cost about $40,000 and be ready in July. It will provide much needed room for the manufacture of their product.

THE
New Zealand Shipping Company Limited
CANADA
TO
Australia and New Zealand

Regular monthly sailings from Montreal in summer and St. John in winter, calling at Auckland, Wellington, Lyttelton and Dunedin (New Zealand) and Melbourne and Sydney (Australia). Sailings 20th of eachmonth.

Through bills of lading issued to all points in Australia, New Zealand, Tasmania and other islands of Oceania.

Marine Insurance effected at rates equal to those given from New York.

For rates and other information apply to
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22 TORONTO STREET, TORONTO
EXPORT MARINE IMPORT
INSURANCE
INCLUDING LOSS BY MINES AND STRIKES



For a "Great" Vacation

Try the Great Lakes Trip by Canadian Pacific Steamer. For when the mercury is playing around in the upper eighties, and you wish Henry Ford would invent a self-refrigerating collar---do you ever stop to remember that the temperature of Lake Superior ***never rises above 40 degrees?***

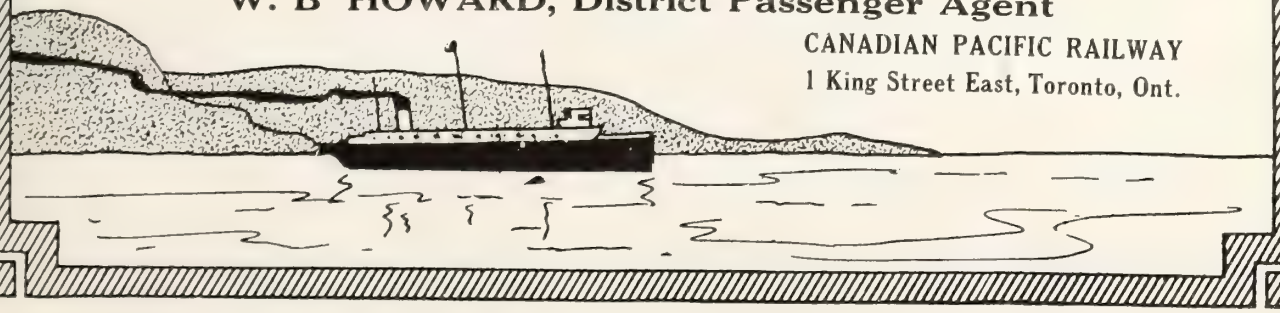
What if you don't spare the time for a long holiday? The Canadian Pacific Railway's Clyde-built steamships make a five-day trip from Port McNicoll to Fort William and back, during which you can be as cool as an Eskimo and as comfortable as a clubman.

Roomy cabins, the best of chefs---oh, those broiled Lake Superior whitefish!---tea on deck under the lazy awnings---seagulls against the long, northern sunset---and a breeze from a thousand miles of clean pine woods, on duty twenty-four hours in the day.

Then---if you find you've got more time than you counted on---how about a week on the Nipigon River, forty miles from Fort William, with guides, canoes and camp-fires and white water under the moon---and more speckled trout than you know what to do with?

How do you get there? That's easy. Phone---write---or see any Canadian Pacific Ticket Agent, or

W. B HOWARD, District Passenger Agent
CANADIAN PACIFIC RAILWAY
1 King Street East, Toronto, Ont.



Canada-South Africa

Direct Service

Regular monthly sailings from Montreal in Summer and St. John, N.B., in Winter, calling at Cape Town, Algoa Bay (Port Elizabeth), East London, Port Natal (Durban) and Delagoa Bay in the order named.

Sailings 20th of each month.

All steamers fitted with refrigerators for the carriage of perishable freight.

For rates of freight and other information apply to

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133 BOARD OF TRADE BUILDING - - MONTREAL
Toronto Agent: S. J. SHARP, 79 Yonge St., Royal Bank Bldg.

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Freight handled to or from any part of the World.

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STEAMER **SPACE** ENGAGED

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Telephone Main 6559

Cable Address "HEADSHIP" for all offices

Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

DOMESTIC.

427. Agency.—A gentleman in Halifax would like to get in touch with Canadian manufacturers in Ontario and Quebec who are desirous of having an agent in the Maritime Provinces. He is familiar with shipping and is qualified to handle office equipment and specialties. His references are good.

428. Agency in Vancouver.—A firm in Vancouver that represents several manufacturers in the East would like to extend its business and secure further agencies for boys' clothing, shirts, etc. This firm is well known throughout British Columbia and Alberta.

429. Agency for staple lines.—An experienced salesman who has been resident in Vancouver for fifteen years is desirous of obtaining the agency for one or more lines of staple Canadian manufactured goods. Should any firms be interested in this inquiry, he would make a trip east and go into the matter at first hand.

430. Agency.—A firm of commercial brokers in Vancouver would like to get into immediate touch with Toronto and other Ontario manufacturers desirous of selling their goods in British Columbia. This firm is of good standing and wishes to secure the agency for three or four high-class lines.

FOREIGN.

431. Serbia.—A firm in Serbia wishes to get in touch with manufacturers who are desirous of exporting to that country. The following are the articles in which they are most interested: machinery, railway materials, steel and iron products, war and peace arms, ammunitions, chemicals, underwear, hosiery, cordage.

432. Sole leather.—An Edinburg firm ask to be placed in touch with exporters of the above.

433. Shoe ironmongery and makers' tools.—An Edinburgh firm ask to be placed in touch with exporters of the above.

434. Jewellery, cutlery, fancy goods.—A Glasgow firm would like to get in touch with exporters of the above.

435. Graphite.—A Glasgow firm asks to be put in touch with exporters of graphite.

436. Broom handles.—A Glasgow firm ask to be placed in touch with exporters of the above; 32 in. to 74 in. by 1⅛ in.

437. Agricultural tool handles.—A Glasgow firm are in a position to import at least a car-load of the above.

438. Miners' and navvy pick handles.—A Glasgow firm are in a position to import at least a car-load of the above.

439. Hardware.—A London firm possessing an established connection in the hardware trade, wish to obtain the representation of Canadian manufacturers of hardware lines.

440. Malleable iron and steel castings, steel blooms, billets and bars.—A Birmingham company wish to represent in the United Kingdom Canadian manufacturers of the above.

441. Wire nails, enamelled ware, etc.—An English firm wishes to purchase for direct shipment to customers on the Gold Coast (West Africa) supplies of wire nails, enamelled ware and galvanized corrugated iron sheets, and invites prices from Canadian manufacturers. Terms, cash against documents at London bank.

442. Butter boxes.—The London office of a South African agricultural society wish to place a contract for 100,000 butter boxes of the standard specification, which they use regularly, and invite offers from Canadian manufacturers able to quote for prompt shipment, c.i.f. Durban. Specifications: 100,000 butter boxes, to be made from whitewood only, planed on both sides, free from odor and to be supplied in a seasoned condition. No. 1 tops and bottoms, 16 in. by 11½ in. by ½ in. in 2 pieces, tongued, grooved and glued; sides, 16 in. by 11½ in. by ½ in. in 2 pieces, tongued, grooved and glued; ends, 10½ in. by 11½ in. by ⅝ in. in 2 pieces, tongued, grooved and glued. No. 2 tops and bottoms, 13¼ in. by 13 in. by ½ in. in 2 pieces, tongued, grooved and glued; sides, 13¼ in. by 12 in. by ½ in. in 2 pieces, tongued, grooved and glued; ends, 12 in. by 12 in. by ⅝ in. in 2 pieces, tongued, grooved and glued.

CANADA'S SUMMER GIRL



GOES TO .....

MUSKOKA

LA BAIE DE CHALEUR

PRINCE EDWARD ISLAND

ST. JOHN RIVER VALLEY

NOVA SCOTIA - BY - THE SEA



Via The National Way

-OR-

NIPIGON
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MINAKI

OUT OF DOOR

LOWER ST. LAWRENCE AND MARITIME PROVINCES.

QUEBEC AND - NORTHERN ONTARIO.

PRAIRIES, ROCKIES & PACIFIC COAST.

FREE COPIES OF ABOVE PUBLICATIONS ON APPLICATION TO GENERAL PASSENGER DEPARTMENT

VANCOUVER WINNIPEG TORONTO
MONTREAL QUEBEC MONCTON

Canadian National Railways

443. Porcelain insulators.—A company in the north of England asks for the addresses of Canadian manufacturers of porcelain insulators for use in electrical gear.

444. Matches.—A firm in the English Midlands is desirous of hearing from Canadian manufacturers of matches who can fill orders.

445. West African trade.—A Liverpool firm of West African merchants ask to be placed in touch with exporters of enamel and galvanized ware, building materials, wire nails, locks, hinges, all classes of hardware, canned fruits, meats and salmon, etc., for direct shipment to West Africa.

446. West African trade.—A Liverpool firm of West African merchants wish to be placed in touch with exporters of asbestos roofing, building materials, enamelware, iron bars, wire nails, locks, hinges, galvanized ware, canned fruits, meats and salmon, shovels, tools, flour, etc., for direct export to West Africa.

447. Chemicals, etc.—A Liverpool firm ask to be placed in touch with exporters of chemical, drugs, herbs, roots, bark, burnt sugar (caramel), gelatine, isinglass, essential oils of all kinds, and colors of all descriptions for foodstuffs.

448. Canned lobster.—A firm in Gothenburg, Sweden, asks for the addresses of the principal Canadian packers of canned lobsters.

449. Chemicals, glues, magnesites.—A Glasgow firm ask to be placed in touch with exporters of the above.

450. Curtain poles, spring roller extension rods.—A Glasgow firm are in a position to purchase at least a car-load of each of the above.

451. Hickory tool handles—all kinds and sizes.—A Glasgow firm are in a position to take at least a car-load of the above.

452. Occasional tables.—A Glasgow firm are in a position to buy large quantities of small wooden tables, sizes 16 in. by 16 in. to 20 in. by 30 in.

The Empire Clothing Mfg. Co., 156-160 John Street, Toronto, have purchased the property at the south-east corner of Richmond and Duncan Streets, with a view to erecting a new plant. They are, however, not as yet in a position to make any statement regarding their plans.

Deaths Among Prominent Manufacturers

Specialized in Wheels

The Late A. W. Benjamin of Yarker, Ont., Spent Years in Wheel Manufacturing

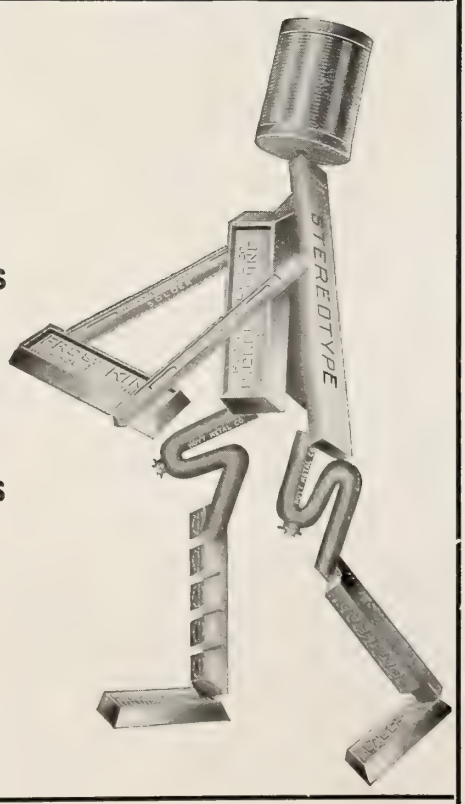
A well-known manufacturer of Eastern Ontario passed away on May 11th in the person of A. W. Benjamin, head of the Benjamin Wheel Company, Limited, Yarker, Ont. Mr. Benjamin conducted a wheel and axle factory in Yarker for many years, making most of the wheels used by the McLaughlin Carriage Co. Later, when the latter company went into the automobile business, Mr. Benjamin took up the manufacture of automobile spokes and wheels. Still later he began the manufacture of baskets, boxes and patented shipping containers. His death occurred after a brief illness at the Kingston General Hospital.

Died at Peterboro

The Late Dyson Worth Was Long Identified with the Woollen Manufacturing Industry

After a long illness there passed away at Peterboro on May 21, Dyson Worth of the Canadian Woollens, Limited. Mr. Worth was born in Huddersfield, England, 60 years ago, and lived in England until twenty-three years ago. He then spent sixteen years in the woollen manufacturing business in Sweden. Seven years ago he came to Peterboro and assisted in the formation of the Bonner-Worth Co., which was last year merged in the Canadian Woollens, Limited. He is survived by his wife, three sons and two daughters, all of Peterboro.

Babbitts
Solders
Pig Metals
Type Metals
Lead Pipe
Lead Traps
Lead Sheet
Lead Cames



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WHITE METALS
in the World

HOYT METAL COMPANY
Montreal TORONTO Winnipeg



LEAMINGTON, ONT.
H. J. HEINZ COMPANY
50,000 gallon, 100 foot tower Gravity Tank
100,000 gallon Standpipe Suction Tank
Fire Protection Service

ELEVATED STEEL TANKS

Standpipes
Penstocks
Miscellaneous Tank and Plate Work
Highway Bridges
Mill and Office Buildings

Consult our Engineering Department for Designs and Estimates on your Requirements

Canadian Des Moines Steel Co.
Limited
OFFICE AND PLANT: 150 INSHES AVE.
CHATHAM, ONT.

Minister:
Hon. W. R. Rollo

Department of Labour
ONTARIO GOVERNMENT

Deputy Minister:
W. A. Riddell, Ph.D.

INVESTIGATION AND RESEARCH

The Department is the Provincial centre for investigation and research in matters connected with labour. Pamphlets on vocational opportunities for boys and girls in the industries of the Province are being prepared.

Already issued—
Bulletin on Department and Notion Stores.

Also—
Mothers' Allowances—An Investigation.

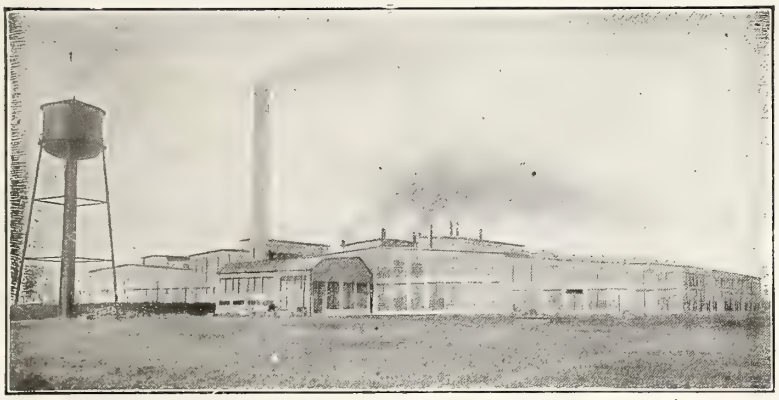
ADMINISTRATION OF

1. The Stationary and Hoisting Engineers' Act.
2. The Factory, Shop and Office Building Act.
3. The Steam Boiler Act.
4. The Building Trades Protection Act.
5. The Employment Agencies Act.
6. The Bureau of Labour Act.

Ontario Government Employment Bureaus
(Employment Service of Canada)
Use these bureaus to obtain workers for every grade of work

ARMSTRONG WHITWORTH OF CANADA
LIMITED

Montreal,
Toronto,
Hamilton,
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Manufacturers in Canada of

Locomotive and Car Wheel Tires

HIGH SPEED and CARBON TOOL STEEL

TAR PRODUCTS

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Black Varnish
Creosote Oils
Wood Preservative Oils
Hard Coal-Tar Pitch
Naphthalene
Disinfectants
Crude Carbolic Acids
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Paint Naphthas
Crude Naphthas
Shingle Stain Oils

Dominion Tar and Chemical Co.
LIMITED

TAR DISTILLERIES
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Address all communications to Sales Office
171 St. James Street - Montreal

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. Rates for insertion in this department, $4.00 per heading per year (12 insertions).

ABRASIVES
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

ADVERTISING SIGNS
Cross Press & Sign Co., Ltd., Woodstock, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.

AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

AIR LIFT PUMPS
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.

ALKALIES
Brunner, Mond Canada, Limited, Amherstburg, Ont.

ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,

ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.

ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.

ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

ARSENIC
*Deloro Smelting & Refining Co., Limited, Deloro, Ont.

ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.

ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.

AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.

AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BACON
F. W. Fearman Co., Ltd., Hamilton, Ont.

BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Flashlight
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Storage
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BEARINGS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEEF
F. W. Fearman Co., Ltd., Hamilton, Ont.

BELTING CHAINS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*McArthur Beltings, Limited, Brockville, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha and Rubber Ltd., Toronto, Ont.

BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
*Canadian Salt Co., Ltd., Windsor, Ont.

BLOWERS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.

BOILER GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILERS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co., Ltd., Guelph,
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, hot water or steam
Warden King, Ltd., Montreal.

BOILERS, steam
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada Ltd., Hamilton, Ont.

BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.

BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.

BOOKLETS
R. G. McLean, Toronto.

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

BOXES, cellular and fibre board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.

BOXES, rattle and soap
The Arlington Co. of Canada Ltd., Toronto, Ont.

BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penatanguishene, Ont.

BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.

BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS ENGRAVERS
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS PLATES
*Tallman Brass & Metal Co., Hamilton, Ont.

*For Display Advertisement see Index, Page 51

BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd,, New Toronto.

BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS WORK, special
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BRICK
*Interprovincial Pressed Brick Co. of Canada, Limited, Toronto.
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.

BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd. Quebec, Que.

BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.

BRIDGES, Railway and Highway
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd,, Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.

BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.

BRONZE SHEETS, RODS, PLATES
*Dominion Copper Products Company, Ltd., Montreal.

BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,

BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.

BRUSHES, carbon
*Canadian National Carbon Co., Ltd., Toronto.

BUCKET TANKS
*MacKinnon Steel Co., Ltd,, Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.

BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
*The Barrett Co., Ltd., Toronto and Montreal.

BUNGS, wooden for barrels
Wm. H. White, Ville St. Pierre, Montreal, Que.

BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.

BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.

CABLES, electric light, power, telephone and telegraph
*Northern Electric Company, Limited, Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd,, Hamilton, Ont.

CABLES, transmission and telephones
*Northern Electric Company, Limited, Montreal, Que.

CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.

CABLES, wire
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.

CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.

CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd:, Brantford, Ont.

CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.

CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.

CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.

CARBIDE
*Canada Carbide Co., Ltd., Montreal. Que.

CARBONS, electric
*Canadian National Carbon Co., Ltd., Toronto, Ont.

CARBONIC ACID GAS
*Canadian Carbonate Co., Montreal.

CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.

CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CARRIERS
*Richards-Wilcox Canadian Co Ltd London, Ont.

CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.

CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARS
*National Steel Car Co., Ltd., Hamilton, Ont.

CARS, industrial
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.

CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

CASTINGS, aluminum, brass and bronze
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto. Ont.
*Dodge Mfg. Co., Toronto.
*The Goldie & McCulloch Co., Ltd. Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CASTINGS, malleable iron
*Galt Malleable Iron Co., Ltd., Galt, Ont.

CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd. Welland, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.

CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd. Toronto. Ont.

CAUSTIC SODA
*Canadian Salt Co., Ltd., Windsor.

CELLBOARD
*Adams Cellboard Co., Toronto.

CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Company, Ltd., Toronto, Ont.

CHAIRS
*Office Specialty Mfg. Co., Ltd Newmarket, Ont.

CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Stratford, Ont.

CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*The Grasselli Chemical Co., Ltd. Toronto, Ont.
*The Nichols Chemical Co., Ltd Montreal, Que.

CHEMISTS, industrial
*Milton Hersey Co., Montreal.

CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd. Toronto. Ont.

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton. Ont.

CLAM SHELL BUCKETS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CLAY, Ground.
*Interprovincial Brick Co. of Canada, Limited, Toronto.

CLOCKS, time
*International Business Machines Co., Ltd., Toronto.

CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd. Toronto, Ont.

CLOSET SEATS
*Goderich Organ Co., Goderich,Ont

CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.

CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto

CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co. Ltd., Orillia, Ont.

CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.

CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.

COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.

COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

COFFEE
S. H. Ewing & Sons, Montreal.

COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd. Hamilton, Ont.

COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.

COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.

COLORS
*A. Ramsay & Son Co., Montreal.

COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd Toronto, Ont.

COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.

CONCRETE COATINGS, PAINTS, Etc.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Sturgeons Limited, Toronto.

CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd., Toronto, Ont.

CONDENSERS, Barometic
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.

CONTAINER BOARD—strong container
*Bathurst Lumber Co., Ltd. Bathurst, N.B.

CONTRACTOR'S PLANT
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CONVEYORS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.

COPPER
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.

COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
*Booth-Coulter Copper & Brass Co Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

* For Display Advertisement see Index. Page 51

COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
CORKS
S. H. Ewing & Sons, Montreal, Que.
CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.
CORRUGATED PAPER BOXES
*Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
CORSETS
Dominion Corset Co., Quebec, Que.
COTTONS
*Montreal Cottons, Ltd., Valleyfield, P.Q.
COTTONADES
Hamilton Cotton Co., Hamilton, Ont.
COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.
COUPLINGS
*Dodge Mfg. Co., Ltd., Toronto.
CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.
CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.
CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.
CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.
CRUSHERS, Rock and Ore
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
CUPOLAS
*Northern Crane Works, Ltd., Walkerville, Ont.
CUPS, presentation
Standard Silver Co., Toronto, Ont.
CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.
CUTLERY
Standard Silver Co., Toronto, Ont.
CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.
DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.
DENIMS
Hamilton Cotton Co., Hamilton, Ont.
DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.
DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.
DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.
DIES
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
DISINFECTING APPARATUS
Spramotor Co., London, Ont.
DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.
DREDGES
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
DRESSING, belt
Sadler & Haworth, Montreal, Que.
DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas, Ont.
DRILLS, Square or Hexagon
Globe Engineering Co., Limited. Hamilton, Ont.
DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.
DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.
DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
DRY COLORS
*The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.
DURABLE WIRE ROPE
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.
DYNAMOS
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont
ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.
ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.
ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.
ELECTRODES, carbon
*Canadian National Carbon Co., Ltd., Toronto, Ont.
ELECTROTYPING
Central Press Agency, Ltd., Toronto.
ELECTRICAL SUPPLIES
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.
ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont
ELEVATING MACHINERY
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
ELEVATORS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd Toronto, Ont.
*The A. B. Ormsby Co., Ltd Toronto, Ont.
ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.
EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
ENAMEL AND TIN WARE
*McClary Mfg. Co., London, Ont.
ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & R. Weir, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
*Massey-Harris Co., Ltd., Toronto.
ENGINES, gasoline, tractor, plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.
ENGINES, hoisting
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*The Waterous Engine Works Co. Ltd., Brantford, Ont.
ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.
ENGINES, steam plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.
ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.
ENGRAVERS, half-tone
Grip, Ltd., Toronto.
ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.
ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont.
ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.
ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.
ENVELOPES
*Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal Que.
EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.
EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.
FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.
FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.
FANS
*The Canadian Blower & Forge Co. Ltd., Kitchener, Ont.
FARM POWER & LIGHT PLANTS
*Northern Electric Company, Limited, Montreal, Que.
FENCING, wire
*C. H. Johnson & Sons, Ltd., Montreal, Que.
FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.
FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.
FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal, Supply Department
FIBRE (vulcanized), sheets, rods, tubes, etc.
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.
FILING CABINETS
*Office Specialty Co., Newmarket, Ont.
FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.
FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.
FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRE BRICK, PLASTIC
Beveridge Paper Co., Ltd., Montreal, Que.
FIRE DOOR HARDWARE
*Richard Wilcox Canadian Co., Ltd., London, Ont.
FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE HOSE
*Canadian Consolidated Rubber Co of Canada, Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.
FIRE PROTECTION SYSTEMS
*Canadian Des Moines Steel Co., Limited, Chatham.
FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont
FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.
FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.

*For Display Advertisement see Index, Page 51

FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.
FITTINGS, steam
Warden King Ltd., Montreal, Que.
FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.
FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FURNACES
*McClary Mfg. Co., London, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd. Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
*S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd. Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GAUGES
*Brown Engineering Corporation, Toronto, Ont.
GEARS, cut
*Brown Engineering Corporation Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GILDING METAL
*Dominion Copper Products Co Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto
Craig, Cowan Co., Ltd., Toronto
GLUE
Canada Glue Co., Ltd., Brantford Ont.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.
GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.
GRAPHITE, lubricating
Black Donald Graphite Company, Limited, Calabogie, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal
GYPSUM PRODUCTS
De Laval Dairy Supply Co., Ltd. Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co. Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd. Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd. Walkerton, Ont.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd. Galt, Ont.
HARDWARE
*Richards-Wilcox Canadian Co. Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
*The Dominion Wire Rope Co. Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATERS, WATER FEED
*Mason Regulator & Engineering Co., Ltd., Montreal, Que.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOSE, fire and rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOUSES, factory made
Wm. H. White, Ville St. Pierre, Montreal, Que.
HYDRAULIC TURBINES
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
*The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
INSULATION VULCANIZED FIBRE
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
JACKS
Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
*Caron Bros., Montreal, Que.
JEWELRY, gold-filled
*Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford,, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spence, Ltd. Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.

*For Display Advertisement see Index, Page 51

LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.
LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LINK-BELT, Ewart and saw mill riveted
*Canadian Link-Belt Co., Toronto
LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd. Galt, Ont.
LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.
LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto, Ont.
LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.
LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.
LOOSE LEAF SYSTEMS
Copeland-Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.
LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
LUMBER
*Brown Corporation, La Tuque, Que.
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.
LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
LUMBER, spruce and pine, cedar railway ties and shingles
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.
LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.
LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.
MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY, Conveying
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd. Galt, Ont.
MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.
MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
Canadian Mead Morrison Co., Ltd. Montreal, Que.
J. & R. Weir, Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, pulp mill
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, roadmaking
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
MACHINERY, transmission
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINE WRENCHES
*Canadian Billings & Spencer, Ltd. Welland, Ont.
MACHINES, painting
Spramotor Co., London, Ont.
MAGNESITE
*Canadian Carbonate Co., Montreal, Que.
MALLEABLE IRON CASTINGS
*Galt Malleable Iron Co., Ltd., Galt, Ont.
MAPLE PRODUCTS
*Maples, Ltd., Toronto, Ont.
MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.
MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.
METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont
METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL LATH
*The Pedlar People, Ltd., Oshawa, Ont.
METAL PACKING
*Garlock Packing Co., Hamilton, Ont.
METAL, spinning and stamping
*The Booth Coulter Copper & Brass Co., Ltd., Toronto, Ont.
METAL PROTECTIVE PAINTS
Sturgeons Limited, Toronto.
METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL STAMPINGS
Canadian Cartridge Co., Ltd., Hamilton, Ont.
METERS, water
Canadian Cartridge Co., Ltd., Hamilton, Ont.
MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
MILLING CUTTERS
*Pratt & Whitney Co. of Canada, Dundas, Ont.
MILL RIVITED
Canadian Link-Belt Company, Ltd. Toronto, Ont.
MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
*A. R. Clarke & Co., Ltd., Toronto
MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.
MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.
MONEL METAL
International Nickel Co. of Canada, Ltd., Toronto.
MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MOTION PICTURES
Pathescope of Canada, Limited, Toronto.
MOTOR CARS
*Ford Co. of Canada, Ford, Ont.
MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.
MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd. Toronto, Ont.
*T. & H. Electric Co., Hamilton.
MOTORS, electric (repairing)
*T. & H. Electric Co., Hamilton.
MOULDERS
*Canada Machinery Corporation Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
NAILS
*The Steel Co. of Canada, Ltd. Hamilton, Ont.
NAILS, copper
Parmenter & Bullock Co., Ltd. Gananoque, Ont.
NAILS, wire
Parmenter & Bullock Co., Ltd. Gananoque, Ont.
NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.
NICKEL CASTINGS
International Nickel Co. of Canada, Ltd., Toronto.
NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
International Nickel Co. of Canada, Ltd., Toronto.
NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St Catharines, Ont.
International Nickel Co. of Canada, Ltd., Toronto.
NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.
OFFICE DESKS
*Goderich Organ Co., Goderich, Ont
OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa Ont.
*Office Specialty Co., Newmarket, Ont.
OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
OILS
*A. Ramsay & Son Co., Montreal, Que.
OIL FILTRATION AND CIRCULATING SYSTEMS
*S. F. Bowser & Co., Toronto, Ont.
OIL STORAGE SYSTEMS, self-measuring
*S. F. Bowser & Co., Toronto, Ont.
OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.
OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*The Imperial Oil Co., Toronto.
OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
ORGANS, reed
Bell Piano & Organ Co., Ltd., Guelph, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto
OXYGEN
*L'Air Liquide Society, Montreal Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
*Jenkins Bros., Ltd., Montreal, Que.
PAD HOOKS
Parmenter & Bullock Co., Ltd. Gananoque, Ont.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.

PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
*A Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.
PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal.
PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.
PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, building
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal.
PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.
PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
PATENTS
Fetherstonhaugh & Co., Toronto.
[illegible] Ont.
*Harold C. Shipman & Co., Ottawa.
PATENT LITIGATION
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.
PAY ROLL AUDITS
[illegible] Machines Ltd., Toronto, Ont.
PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.
PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.
PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.
PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.
PIANO KEYS
The Otto Higel Co., Ltd., Toronto.
PIANO, player actions
The Otto Higel Co., Ltd., Toronto.
PIANOS AND PLAYER PIANOS
Bell Piano & Organ Co., Ltd., Guelph, Ont.
PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.
PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*M. A. Hanna & Co., Toronto.
PINS, society, emblems and badges
*Caron Bros., Montreal, Que.
PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.
PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.
PIPES, culvert
*The Pedlar People, Ltd., Oshawa, Ont.
PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.
PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
PLANING MILLS
G. & J. Esplen, Montreal, Que.
PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
PLOWS
J. Fleury's Sons, Aurora, Ont.
PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd Lachute Mills, P.Q.
POLES, flag
*Ontario Wind Engine & Pump Co. Ltd., Toronto, Ont.
PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.
POWER PRESSES
*Hydraulic Machinery Co., Ltd., Montreal, Que.
PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.
PULLEYS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.
PULP, bleached sulphite
*Riordan Sales Co., Ltd., Montreal, Que.
PULP, unbleached sulphite
*Riordan Sales Co., Ltd., Montreal.
PULP, sulphate and sulphite
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
PUMPS, boiler feed
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.
PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS, turbine and reciprocating
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
PUNCHES
*Pratt & Whitney Co., Dundas, Ont.
RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.
RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.
RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.
READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.
REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.
RECEPTACLES, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.
REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.
REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.
REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.
REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.
RINGS, gold
*Caron Bros., Montreal, Que.
RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
RODS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.
ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.
ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
ROOFING, ready to lay
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.
ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.
ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.
RUBBER FOOTWEAR
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.
RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Limited, Toronto.
RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
RUBBER MILL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
RUBBER PACKING
*Garlock Packing Co., Hamilton, Ont.
RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.
SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.
SAMPLE CASES
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.
SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.
SALT
*Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.
SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.
SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.
SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.
SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.
SAWS, circular mill
Shurly & Deitrich, Galt, Ont.
SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.

*For Display Advertisement see Index. Page 51

SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.
SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.
SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
National Acme Company, Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.
SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.
SERGES
Rosamond Woollen Co., Almonte, Ont.
SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.
SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.
SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.
SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
SHEETS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
SHINGLES
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
SHINGLE STAINS
Sturgeons, Limited, Toronto.
SHIP BUILDERS
J. & R. Weir, Montreal, Que.
SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.
SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.
SHOE PEGWOOD
O. Chalifour, Quebec, Que.
SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.
SHOOKS
Barchard & Co., Ltd., Montreal.
SIGNAL CELLS
*Canadian National Carbon Co., Ltd., Toronto.
SIGNS, Advertising.
Cross Press & Sign Co., Ltd., Woodstock, Ont.

SILENT CHAIN DRIVES
Canadian Link Belt Company, Ltd., Toronto, Ont.
SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
SILVERSMITH
Standard Silver Co., Toronto, Ont.
SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.
SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.
SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.
SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
SMOKE-STACKS
Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
SOAPS
J. Barsalou & Co., Ltd., Montreal.
SOAP (soft, oil)
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
SODA ASH
Brunner, Mond Canada, Limited, Amherstburg, Ont.
SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.
SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto
SOIL PIPE
Anthes Foundry, Ltd., Toronto.
SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.
SOLDER, wire and bar
American Can Co., Montreal, and Hamilton.
SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.
SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.
SPECIAL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Globe Engineering Co., Ltd., Hamilton, Ont.
SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
SPINNING AND STAMPING
*Tallman Brass & Metal, Ltd., Hamilton, Ont.
SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.
SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
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Roden Bros., Ltd., Toronto, Ont.
SPRAYERS
Spramotor Co., London, Ont.
SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,
SPRING SHACKLE BOLTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.

SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
SPROCKET WHEELS
*Canadian Link-Belt Comp Ltd Toronto, Ont.
STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.
STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.
STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.
STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STATIONERY, office
Harris Lithographing Co., Toronto.
STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
STEAM SHOVELS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
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Beauchemin & Fils, Ltd., Sorel, Que.
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*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
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*The A. B. Ormsby Co., Ltd., Toronto, Ont.
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*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
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*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.
STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.
STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.
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Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
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*Beveridge Paper Co., Ltd., Montreal.
STEREOTYPING
Central Press Agency, Toronto.

STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
STORAGE BATTERIES
*Northern Electric Company, Limited, Montreal, Que.
*Prest-O-Lite Company of Canada, Limited, Toronto.
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The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.
STOVE POLISH GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.
STOVES AND RANGES
*McClary Mfg. Co., London, Ont
STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.
STRUCTURAL STEEL WORK
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*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
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*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
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*The Hydraulic Machinery Co., Limited, Montreal.
SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.
SURFACERS
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*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.
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*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
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Wm. H. White, Ville St. Pierre, Montreal, Que.
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*Canadian Des Moines Steel Co., Limited, Chatham.
TANKS, steel storage
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Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
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Salem Oil & Grease Co. of Canada, Limited, Farnham, Que.
TANNERS' SUPPLIES
*McClary Mfg. Co., London, Ont.
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*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

*For Display Advertisement see Index, Page 51

TELEPHONE ACCESSORIES
*Northern Electric Co., Ltd., Montreal, Que.
TENTS
Turner, J. J., & Sons, Peterboro, Ont.
TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
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Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
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*Canadian Billings & Spencer, Ltd., Welland Ont.
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*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
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*Gutta Percha & Rubber Ltd., Toronto, Ont.
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*International Business Machines Co., Ltd., Toronto, Ont.
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*MacDonald Mfg. Co., Ltd., Toronto, Ont.
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*Gutta Percha & Rubber Ltd., Toronto, Ont.
TOILET PAPER, towels, tissues
*Beveridge Paper Co., Ltd., Montreal.
TOOLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.
TOOLS, sheet metal workers'
Brown, Boggs Co., Ltd., Hamilton.
TRADE MARKS AND DESIGNS
*Ridout & Maybee, Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSFORMERS
The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSLATIONS INTO FRENCH
Raoul Renault, Quebec City.
TRANSMISSION MACHINERY
Bond Engineering Works, Limited, Toronto.
*Canadian Link Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
TRAPS
*C. A. Dunham Co., Ltd., Toronto.
TROLLEYS
*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.
TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.
TRUCKS FOR OFFICE AND VAULT USE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto.
TUBES, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.
TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.
TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.
TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.
TURBINE PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
TWEEDS
Rosamond Woollen Co., Almonte, Ont.
TWINES
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.
TWINES, binder
Brantford Cordage Co., Ltd., Brantford, Ont.
TWINES, cotton
Hamilton Cotton Co., Hamilton, Ont.
TWIST DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll.
*Pratt & Whitney Co. of Canada, Dundas, Ont.
UNDERWEAR
Galt Knitting Co., Ltd., Galt, Ont.
UNDERWEAR, imperial
Kingston Hosiery Co., Ltd., Kingston, Ont.
UNIONS
*Dart Union Co., Ltd., Toronto.
UPHOLSTERED FURNITURE, leather and tapestries
Imperial Rattan Co., Ltd.
VACCUM PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
VALVES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.
VALVES, for steam and water
*Jenkins Bros., Ltd., Montreal.
James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
VALVES, REDUCING
*Mason Regulator & Engineering Co., Ltd., Montreal, Que.
VARNISHES
*Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
R. C. Jamieson & Co., Ltd., Montreal, Que.
VAULT FITTINGS, steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
VAULTS AND VAULT DOORS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
VENTILATORS
*A. B. Ormsby, Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
WALLPAPERS
Staunton Limited, Toronto.
WASHERS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
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The Diamond State Fibre Co. of Canada, Ltd., Toronto.
WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.
WASTE BASKETS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
WASTES, wool and cotton
Factory Waste & Metal Co., Montreal, Que.
WATERPROOF, cement coating
Benjamin Moore & Co., Ltd., Toronto, Ont.
*Beveridge Paper Co., Ltd., Montreal. Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.
WATERPROOF, caselining
*Beveridge Paper Co., Ltd., Montreal. Supply Department.
WATER PAINTS
Sturgeons Limited, Toronto.
WEBBING, elastic
Hamilton Cotton Co., Hamilton, Ont.
WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.
WELDING APPARATUS AND MATERIALS
*The Presto-O-Lite Co., Toronto.
WELL-DIGGING TOOLS AND MACHINERY
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
WHEELS, corundum and emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
WELL DRILLING TOOLS AND MACHINERY
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Lay Whip Co., Rock Island, Que.
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Coniagas Reduction Co., Ltd., St. Catharines, Ont.
WHITE LEAD
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WIRE BALE TIES
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
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WIRE GUARDS
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WIRE, insulated electric
*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE, weatherproof
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*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
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*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
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*The Goldie & McCulloch Co., Ltd., Galt, Ont.
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*The Steel Co. of Canada, Ltd., Hamilton, Ont.
WROUGHT PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
YARNS, cotton
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ZINC, electrical
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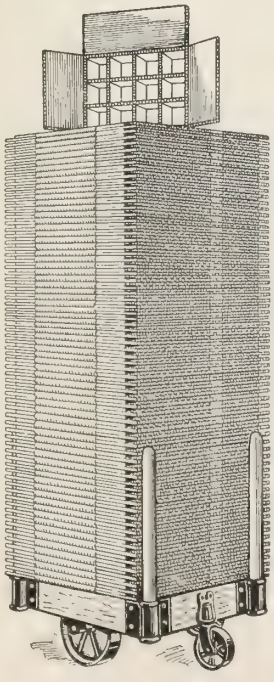
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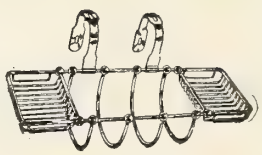
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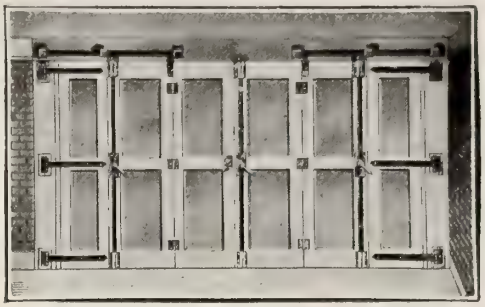
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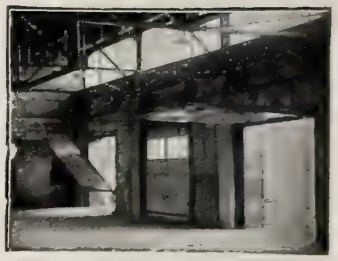
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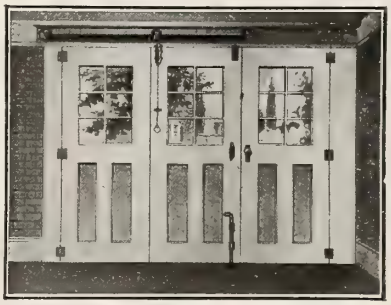
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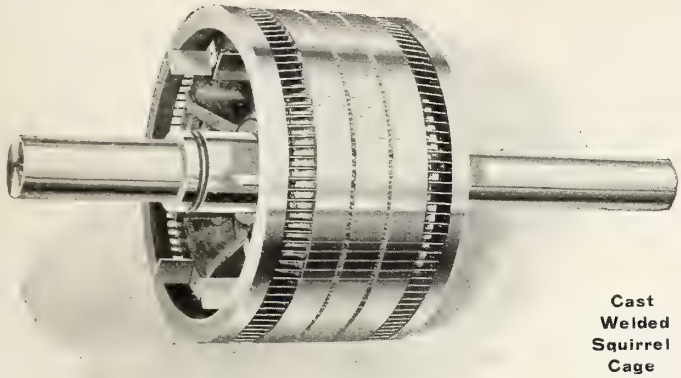
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"A hanger for any door that slides"

Greater Motor Efficiency



Cast Welded Squirrel Cage Rotor

YOU'LL FIND IT IN THE NEW, EXCLUSIVE DESIGN OF CANADIAN CROCKER-WHEELER MOTORS.

CAST-WELDED CONSTRUCTION GUARANTEES "NO FAILURE BETWEEN ROTOR BARS AND THE SHORT CIRCUITING RINGS". NO BREAK-DOWNS.

THESE FEW WORDS WILL BE PREGNANT WITH MEANING TO YOUR ELECTRICAL FRIEND. ASK HIM.

DESCRIPTIVE FOLDER ON REQUEST.

Canadian Crocker-Wheeler Apparatus and Service are available at all of the N. E. Co. Branches as follows:
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Northern Electric Company
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CROCKER-WHEELER COMPANY
LIMITED

Head Office and Works:
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Manufacturers and Electrical Engineers

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Not primarily a Fuel Saver, yet it has a top-notch record for B.T.U.'s Saved

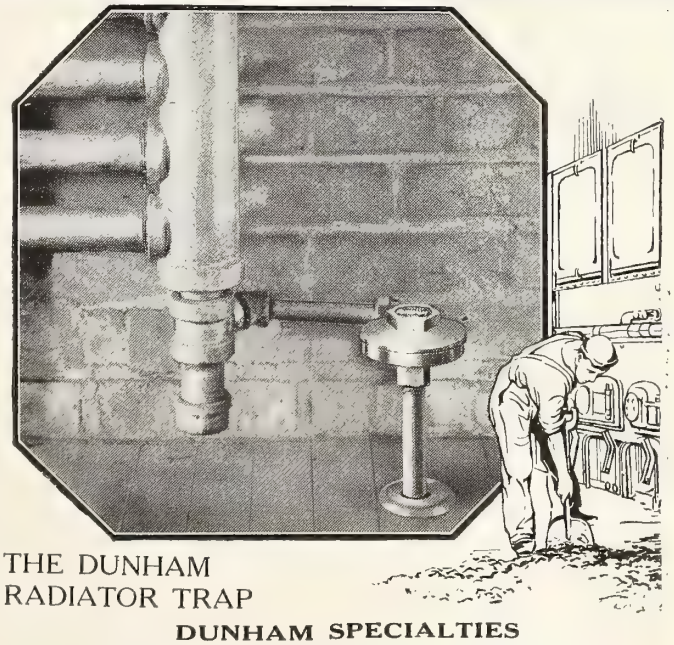
We are extremely conservative when stating the fuel-saving ability of the Dunham Radiator Trap.

In home heating systems, the methods of firing vary so, that we positively refuse to make any definite claims regarding economy. But large installations form a different story—and one which you will find most interesting. May we tell it to you?—that you may see just where the Dunham Radiator Trap fits into your fuel-saving scheme.

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DUNHAM SPECIALTIES

Packless Radiator Valves
Radiator Traps
Drip Traps
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Suction Strainers
Air Vents
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Check Dampers
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The DUNHAM HEATING SERVICE

MADE IN CANADA



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Pratt & Whitney Taps

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P & W Taps are **good** taps —easily the best where accuracy and high speed are essential. They cost more to buy, but less to use than others.

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The BERTRAM Page

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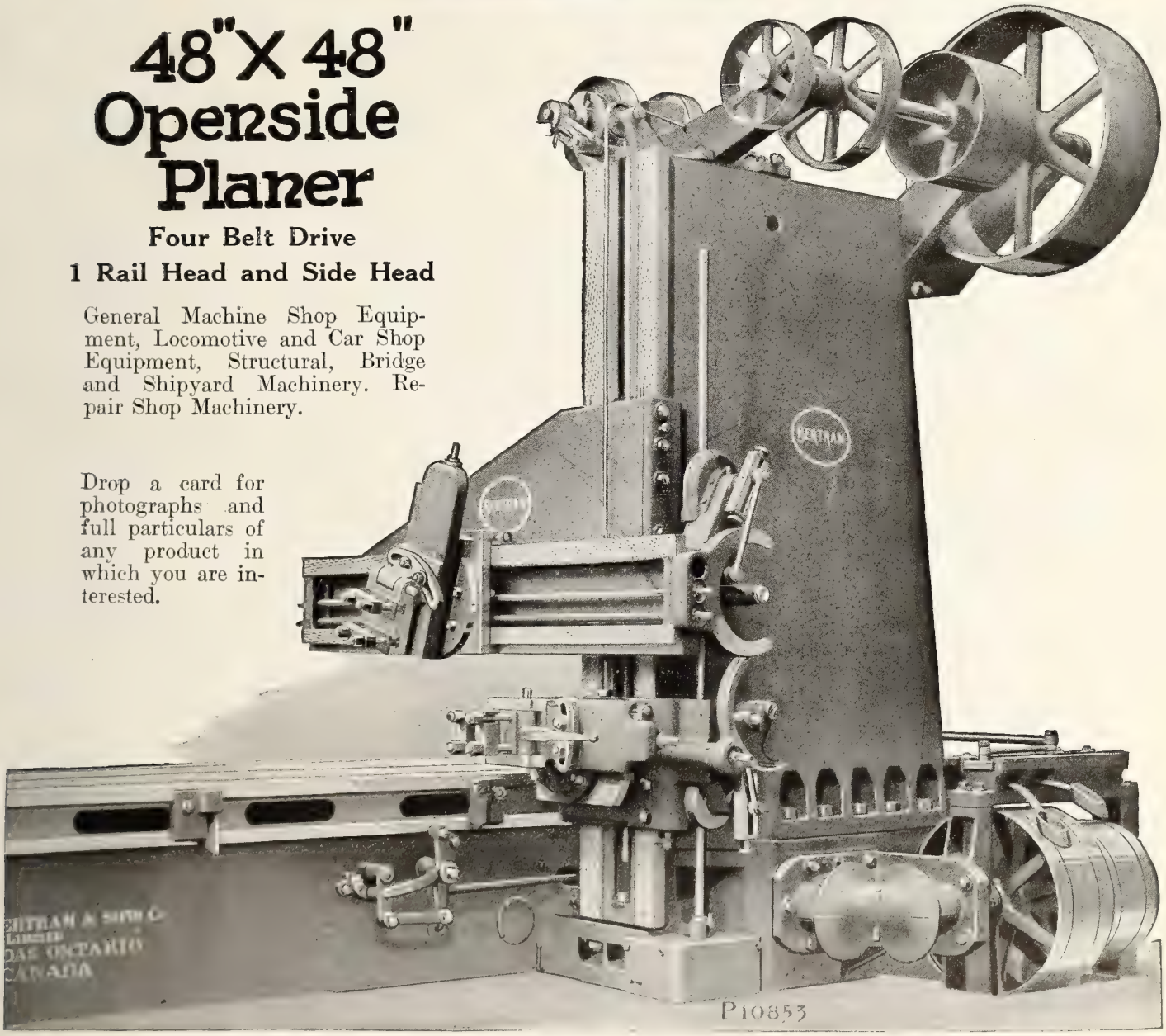
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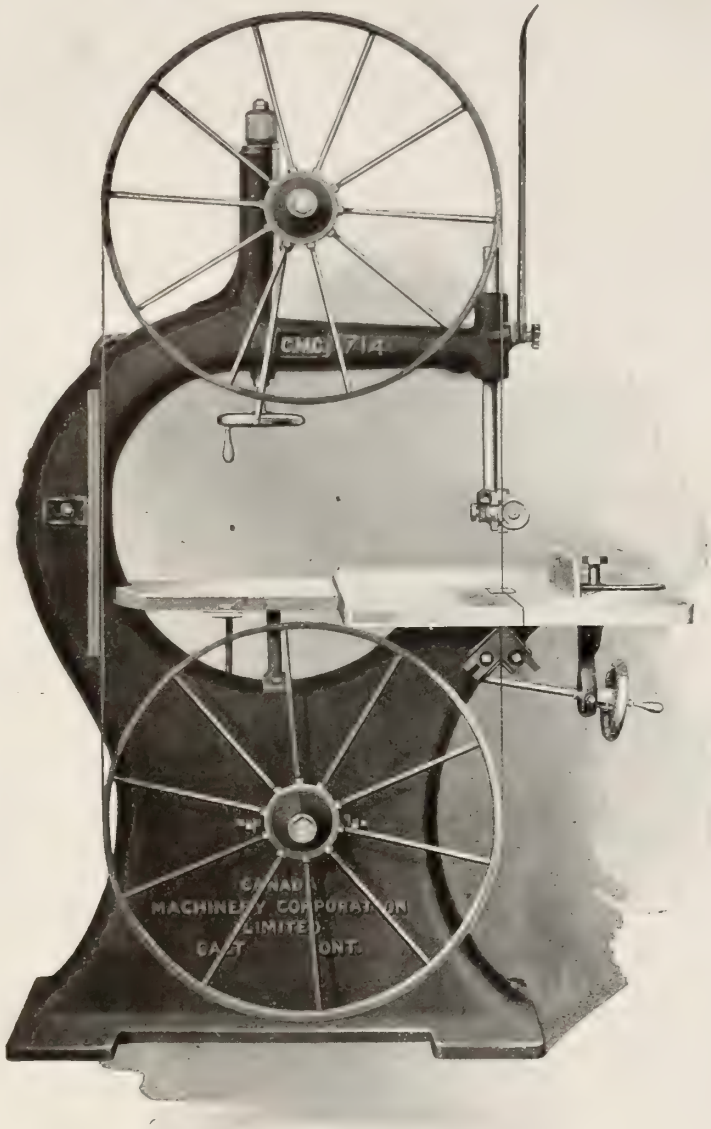
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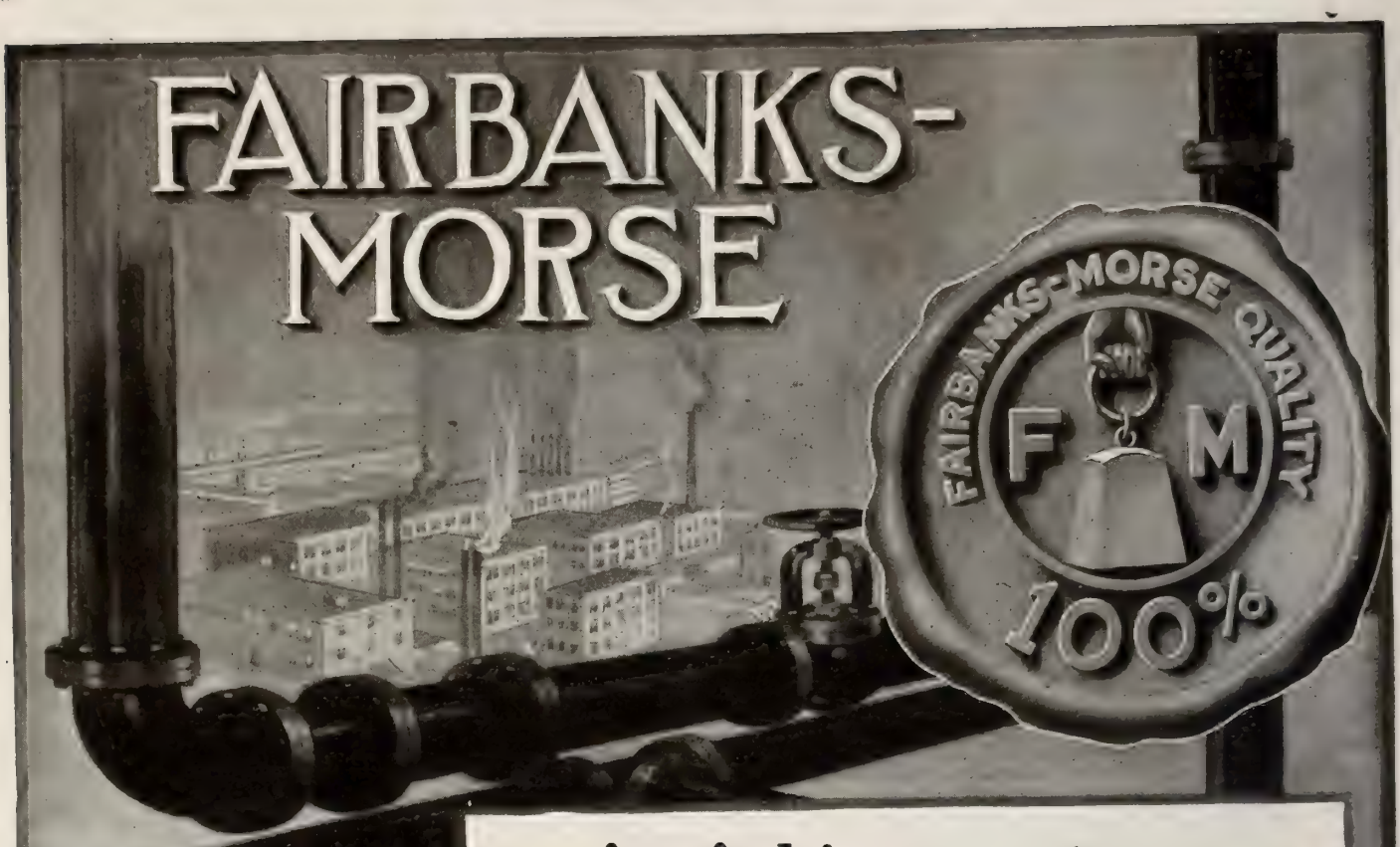
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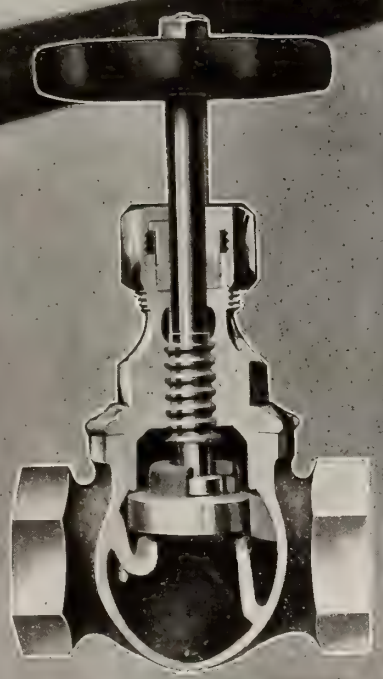
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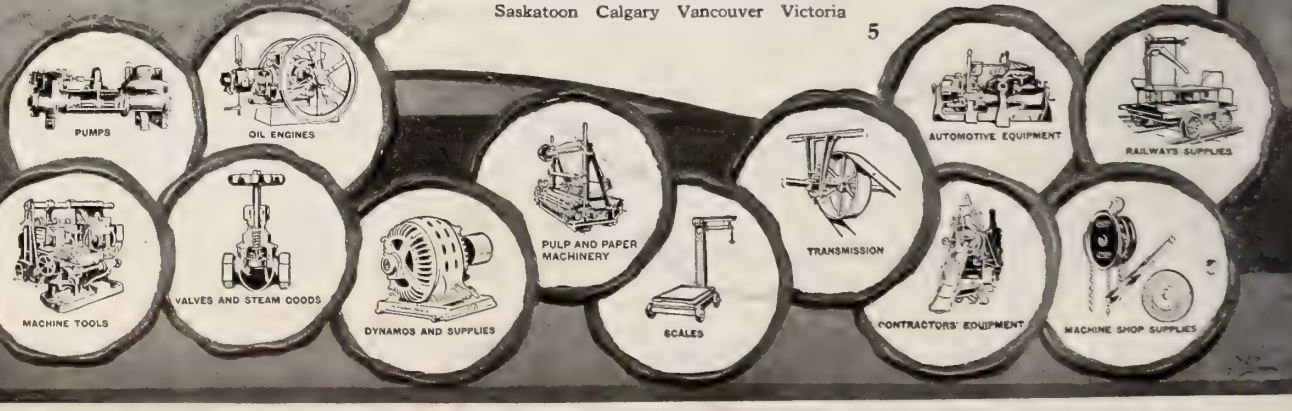
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2

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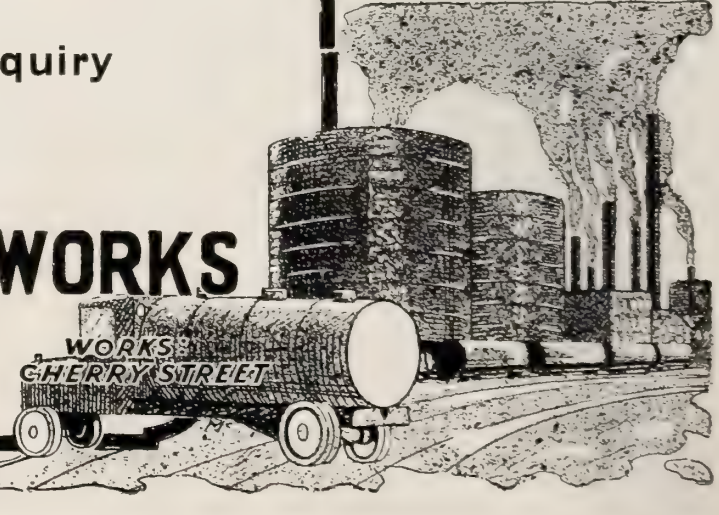
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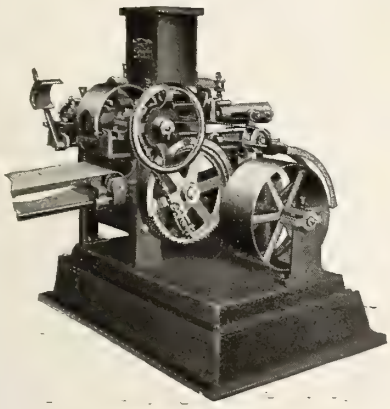
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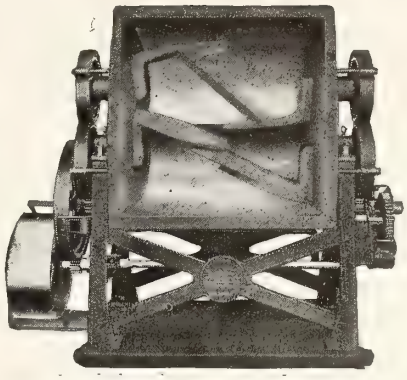
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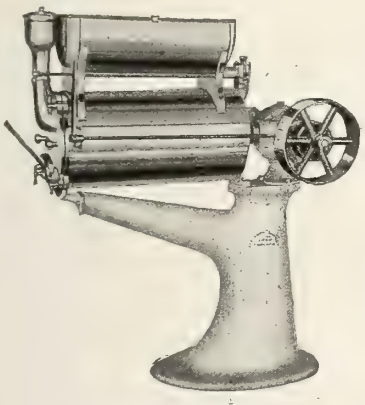
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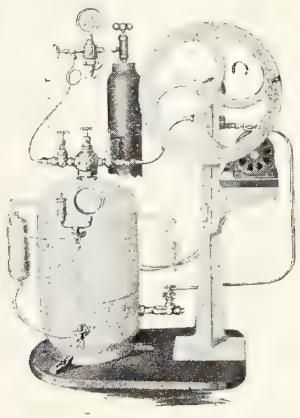
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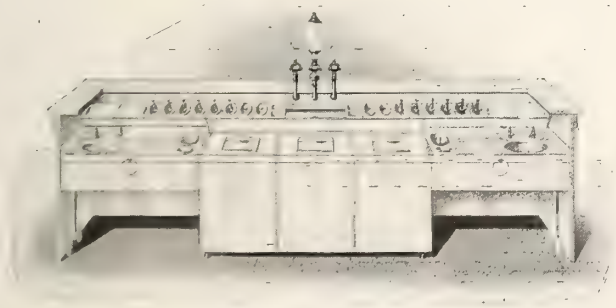
Dough Mixer



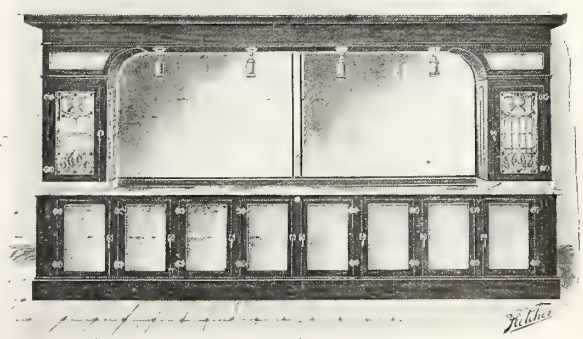
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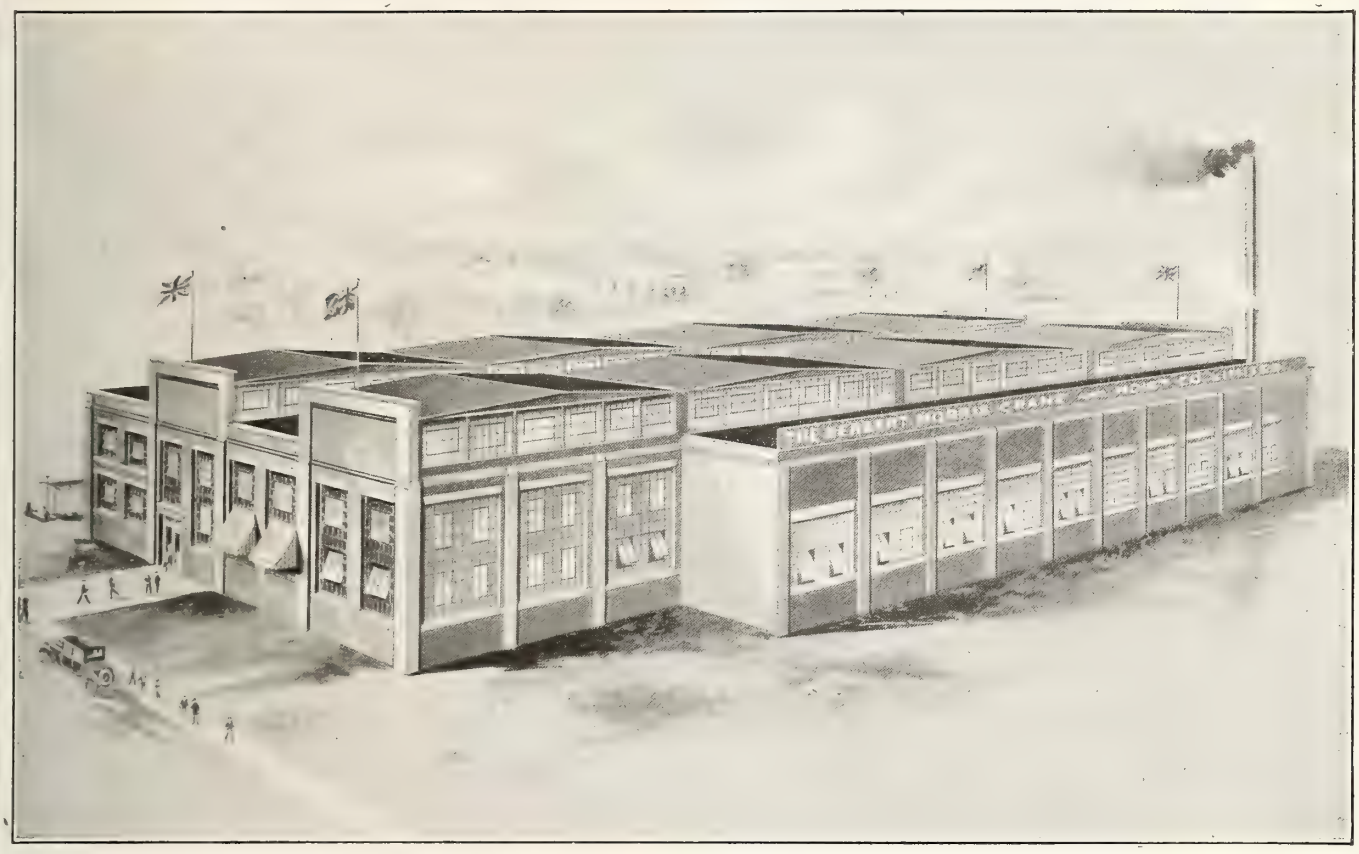
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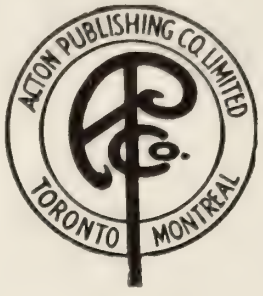
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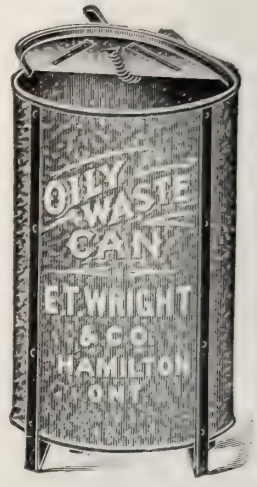
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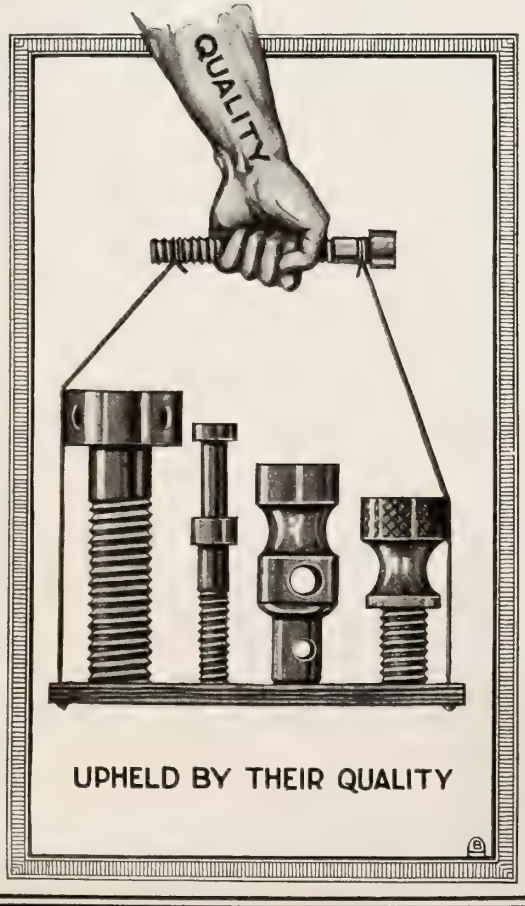






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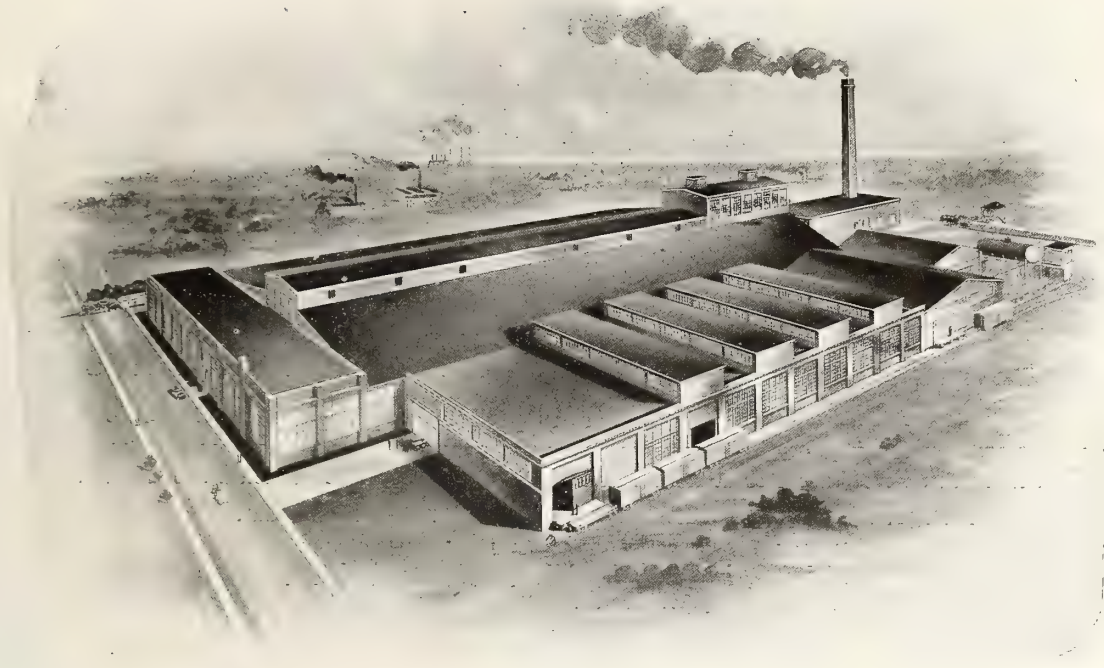
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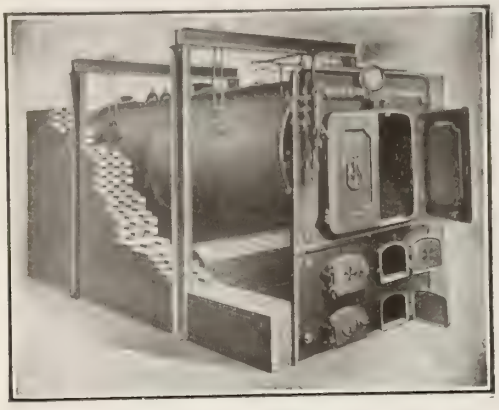
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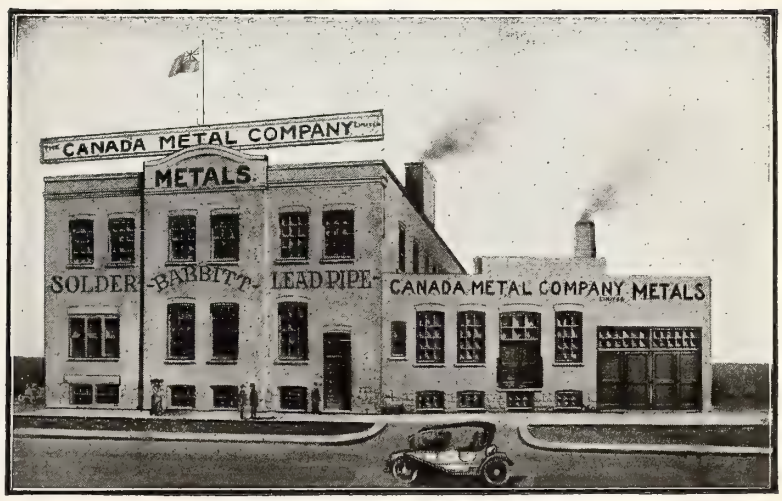


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THE CANADA METAL COMPANY, LIMITED

BABBITT, SOLDER, PIG LEAD, TIN, COPPER ZINC, LEAD PIPE AND SHEET LEAD

THE FOUNDATION COMPANY
LIMITED

ENGINEERS CONTRACTORS

MONTREAL WINNIPEG



A caustic soda, bleach and liquid chlorine plant completed by us.
Our experience in engineering and constructing such industrial plants as this has been large and varied.

Many do not realize the extensive line of goods manufactured by us, and with our name associate only **Sovereign Radiators and Boilers, Lawn Mowers and Mrs. Potts Sad Irons.** There are many other items in the list given below which will doubtless interest you. Inquiries are invited.

Door Buttons.
Steel Thumb Latches.
Barn Door Latches.
Safety Hasps, Steel.
Cottage Latches.
Store Door Handles.
Door Pulls.
Parlor Door Hangers.
Barn Door Hangers.
Steel Barn Door Track
Gate Latches.
Gate Sets.
Blind Hinges.
Screen Door Sets—14 styles.
Floor Hinges and Checks.
Ticket Holders.
Drawer Pulls.
Cabinet Pulls.
Sash Lifts.
Sash Fasts.
Shutter Bars.
Transom Catches.
Casement Window Fasteners.
Sash Centres.
Cupboard Turns.
Cupboard Catches.
Mortise Door Bolts.
Cellar Window Bolts.
Barrel Bolts.
Foot Bolts.
Chain Bolts.
Door Holders.
Door Bumpers or Stops.

Push Plates.
Letter Box Plates.
Package Plates.
Hand Rail Brackets.
Hat and Coat Hooks.
Hall Hooks.
Towel Hooks.
Bath Room Hooks.
Harness Hooks.
Hammock Hooks.
Fire Pail Hooks.
Implement Brackets.
Whip Racks.
Whip Sockets.
Lamp Brackets.

Flower Pot Brackets.
Saw Vises.
Saw Sets.
Sap Spouts.
Bench Screws.
Post Hole Augers.
Quilting Frame Clamps.
Carpenter's Clamps.
Chest Handles.
Trap Door Rings.
Grindstone Fixtures.
Kitchen Grindstones.
Tool Grinders.
Lawn Sprinklers.

Clothes Line Pulleys.
Knot Passing Pulleys.
Plough Pulleys.
Well Wheels.
Hog Rings
Hog Ringers.
Hog Tongs.
Cattle Leaders.
Anti Rattlers.
Tree Pruners.
Tobacco Cutters.
Counter Yard Measures
Plumb Bobs.
Mrs. Potts Sad Irons
Sleeve Irons
Sad Iron Handles.
Sad Iron Stands.
Common Sad Irons.
Axe Wedges.
Clothes Line Reels.
Foot Scrapers.
Tuyere Irons.
Stove Pipe Dampers.
Extension Fire Backs
Stove Cover Lifters
Waffle Irons.
Boiler Heads.
Farm Bells.
Jack Screws.
Cobbler's Outfits.
Clothes Mangles.
Washing Machines and Woodenware.

TAYLOR-FORBES COMPANY LIMITED
Head Office & Works
GUELPH

WINNIPEG REGINA CALGARY
TORONTO MONTREAL VANCOUVER
Hamilton, London, Windsor, Ottawa
QUEBEC ST JOHN HALIFAX

VANCOUVER BRANCH: 1070 HOMER STREET

Use Diamond-Fibre
A Universal Raw Material

SOME USES
of
Diamond-Fibre

AUTOMOTIVE

- Speedometer Gears
- Battery Box Linings
- Brake Bands
- Discs
- Timer Rings
- Frictions
- Parts for Starting, Lighting, and Ignition Systems, etc.

ELECTRICAL

- Bushings
- Conduits
- Cleats
- Switch Bars
- Commutator Rings
- Wire Manifolds
- Switch Handles
- Insulation
- Parts for Dynamos and Generators
- Track Insulation, etc.

MECHANICAL

- Gears (silent)
- Washers
- Gaskets
- Bearings
- Wheels
- Pulleys
- Journals, etc.

INDUSTRIALS

- Trunks
- Cases
- Boxes
- Baskets
- Trucks
- Barrels
- Chair Seats
- Combs
- Knobs
- Toys, etc.

TEXTILE

- Spool Heads
- Bobbin Heads
- Bobbin Boxes
- Shuttles
- Swift Braces
- Roller Covers, etc.

DIAMOND-FIBRE is the most adaptable material known. Its utility in the electrical, mechanical and industrial fields is practically unlimited. Its properties make it especially suitable as a raw material for products and special parts of every description.

It is a superior material because of its great strength — compression, shearing, tensile and dielectric; its toughness and light weight; the ease with which it can be machined and formed; its attractive appearance; and its low cost.

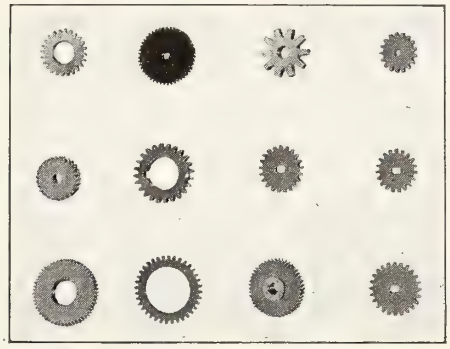
Diamond-Fibre combines in an unusual degree utility, machining and working facility and economy. Manufacturers everywhere find it a better and cheaper material. It replaces other materials with better results and less cost.

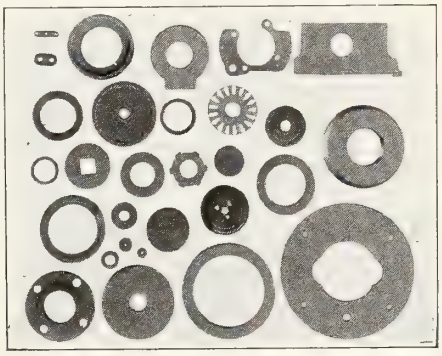
Diamond-Fibre improves the product and cuts production costs. It will pay you to investigate this material. Tell us your problem and let us co-operate. Send for booklet—"Diamond-Fibre and Its Uses."

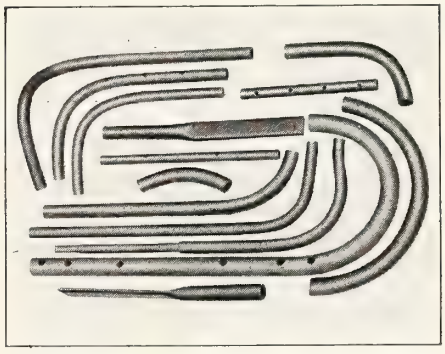
Diamond State Fibre Company of Canada
Limited
TORONTO - CANADA

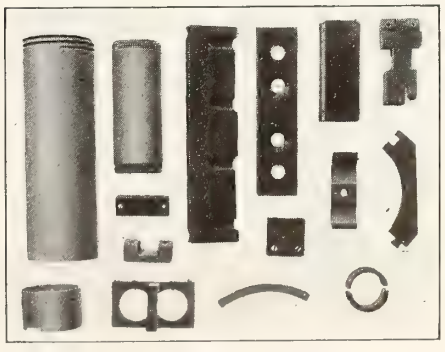
Diamond-Fibre is tougher than horn, almost as hard as iron, yet lighter than aluminum. Its compression strength is 30,000 to 40,000 lbs. per sq. in.; tensile strength 12,000 to 15,000 lbs. per sq. in.; shearing strength, 9,000 to 10,000 lbs. per sq. in.; and its dielectric strength, 200 to 400 volts per mill of thickness. It is impervious to oil, grease and ordinary organic solvents. It does not corrode, dent, break, split, splinter, or crystallize under severe vibration. It readily takes any machining process and can be formed into various shapes. Furnished in sheets, rods, tubes, and machined parts of every description.

Diamond-F











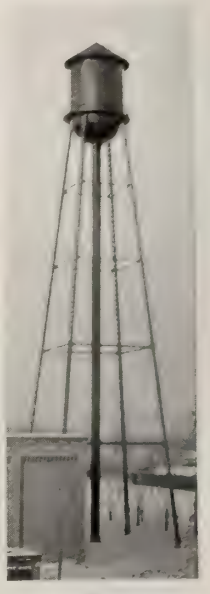
Elevated Steel Tank



Oil Storage Tanks

STEEL IS BEST

IT WILL NOT ROT
IT WILL NOT BURN
IT WILL NOT DRY OUT
IT WILL NOT FAIL



Elevated Steel Tank

Our organization will design, fabricate and erect anything made of steel anywhere

Canadian Des Moines Steel Company, Limited

Office and Plant: 510 Inshes Ave., Chatham, Ont.

"MADE IN CANADA BY CANADIANS"

E. J. WELCH, President and Managing Director
HENRY W. S. DOWNS, Superintendent

EMMONS CROCKER, Vice-President
A. S. MORSE, Secretary and Treasurer

SCREEN PLATES







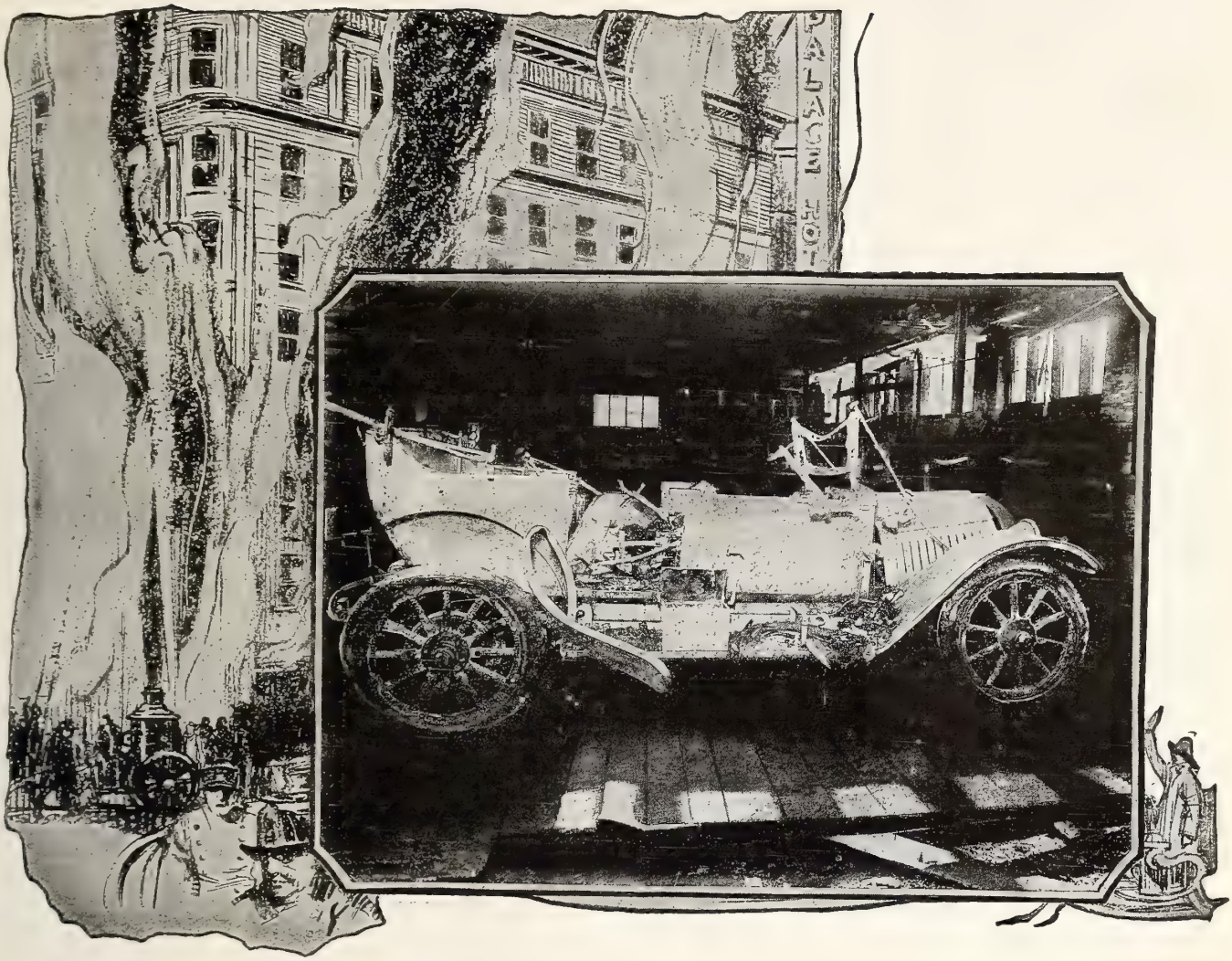
THE "Union" Bronze (best phosphorized cast metal) Plates for Sulphite Mills, the "Union" Cast Metal Suction Plates.

We carry a large stock of blanks of the various sizes and can fill all orders promptly.

Old plates reclosed and recut by our process are practically as good as new and give better results than by any other process.

UNION SCREEN PLATE CO. of Canada, Limited

FACTORY: LENNOXVILLE, QUE. **OFFICES: Lennoxville, Que.** **Fitchburg, Mass., U.S.A.**



DAYLO PREVENTS SUCH DAMAGES

The toll of lives and property lost by 50,000 fires a year in Canada is tremendous, and all the improved fire prevention apparatus and progressive fire laws will only avail when the public is trained to guard against the dangers of unprotected lights. Was it the flicker of a candle in this garage which wrote tragedy for the people shown in the

Eveready $10,000.00 Cash Contest

picture? A sorrow which Daylo could have prevented, or was it a life saved by Daylo in all the panic of a hotel fire?

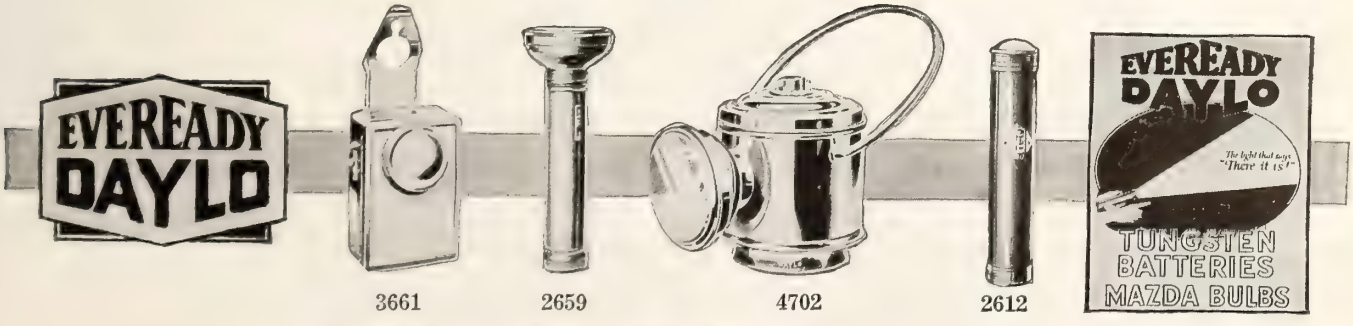
You can count the light-giving, life-saving services of Daylo by hundreds. A description of one of these purposes will win $3,000.00 First Prize or one of the 103 other worth-while cash prizes in this fascinating test of wits.

If you have sent one answer, why not another, or several? Go to the Daylo dealer for free contest blanks; study the picture in his window and send your answer. There's no cost or obligation. If two or more contestants submit the identical answer selected by the judges for a prize, the full amount of the prize will be paid to each. The art Editors of Life will judge the answers.

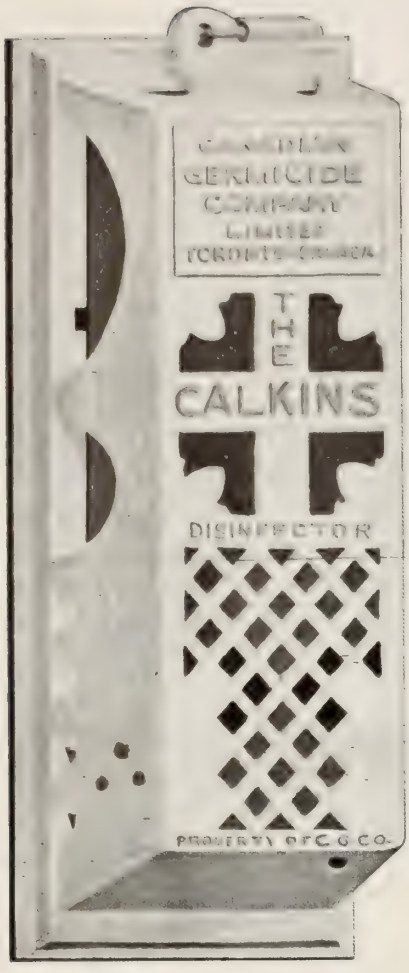
Contest closes Midnight, August 1, 1920.

CANADIAN NATIONAL CARBON COMPANY
Limited
Toronto

A-31110



3661 2659 4702 2612

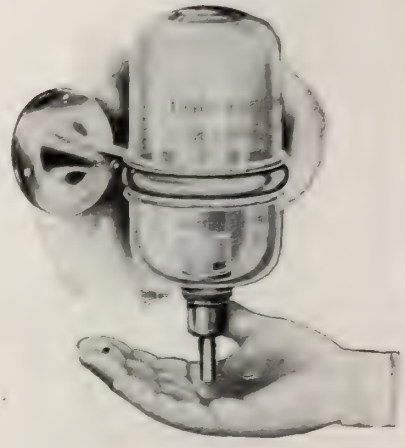


Sanitation - - Production

Sanitation Makes Health

Health Makes Production

Why have unsanitary Toilets? Give your workmen pure air and get **Greater Production.** If there is any question in your mind regarding the best way to disinfect your toilets, write or phone us. We have been at it for over twenty years and our expert advice is absolutely free. Just let us show you how we are caring for hundreds of Factories with our Calkins Disinfector, Liquid Soaps and Soap Dispensers. You need our service.

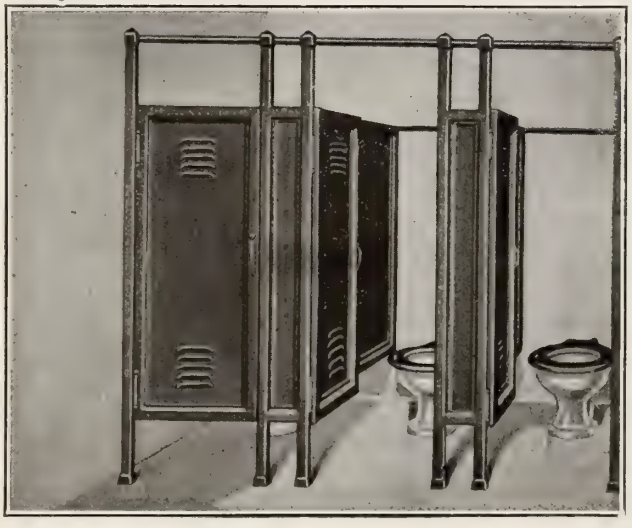


Canadian Germicide Company, Limited

Manufacturers of

DISINFECTANTS AND LIQUID TOILET SOAPS

Dundas and Howard Park Avenue - Toronto, Canada



WE ALSO MAKE

Steel Shelving, Lockers, Cabinets, Bins, Stools, Chairs, etc.

Ornamental Iron and Bronze, Commercial Wirework of all kinds

General Builders' Ironwork

WRITE FOR FOLDERS

Hygienic Equipment

Safeguards your Employees

DENNISTEEL
Made in Canada

Steel Lavatory Partitions

are the only safe equipment for factories and industrial plants---non-absorbent, easy to keep clean, without cracks or crevices---nothing equals them from a hygienic standpoint. Also fireproof and non-markable.

THE DENNIS WIRE AND IRON WORKS CO. LIMITED
LONDON
CANADA

HALIFAX MONTREAL OTTAWA TORONTO
HAMILTON WINNIPEG CALGARY VANCOUVER



THE Dominion Oxygen Company, Ltd., announces the satisfactory progress of its building program.

Work on the Toronto Plant is making excellent headway and a suitable site has been purchased in Montreal where construction work will promptly begin.

Land for the additional plants provided for in the initial plans of the Company is being negotiated for in leading cities.

Meanwhile a practical Service System is undergoing organization and a net-work of suitably located warehouses and service stations will be established.

Pending further announcement the oxygen users of the Dominion are invited to write for detailed information as to the broad scope and liberal policy of the Dominion Oxygen Company, Ltd.

DOMINION OXYGEN COMPANY, Ltd.
Hillcrest Park
Toronto, Canada

D-8

THE HAMILTON BRIDGE WORKS COMPANY

HAMILTON, CANADA LIMITED

Engineers
Manufacturers
and
Contractors

STRUCTURAL STEEL

Railway and Highway Bridges
Buildings, Crane Runways
Girders, Turntables, Tanks
Towers, Trusses and Columns

Enquiries Solicited

Capacity 36,000 Tons



Steel work for Steam Power House recently erected for
The Dominion Power and Transmission Co., Hamilton, Ontario

GARLOCK PACKINGS

Have you ever considered the loss in engine efficiency due to excessive friction on piston and valve rods caused by the use of inferior and poorly lubricated packing?

A horse power easily can be absorbed at the stuffing box and, when considered in dollars and cents at the coal pile, the loss would pay for a high class packing many times over.

Garlock packings are designed to meet every condition of service.

Write for catalog

The Garlock Packing Company

Hamilton, Ontario



BRANCHES:

Montreal, Quebec	409 Shaughnessy Building
Toronto, Ontario	404 Continental Life Building
Winnipeg, Manitoba	Galt Building
Calgary, Alberta	211 Eighth Avenue West
St. John, N.B.	23 Water Street
Vancouver, B.C.	806 Pacific Coast Fire Building





Where every working minute means money, blown fuses cut profits unless electrical circuits are protected by

ECONOMY *renewable* FUSES

Industries using electrical energy operate more efficiently when delays in machine operation are unnecessary while blown fuses are being replaced.

Economy Fuses are used by thousands of industries because they permit of renewal in minimum time at minimum cost.

Where greater efficiency is required a reserve stock of fuses is kept on hand and used in case of blowouts. The blown fuse then is restored to duty at leisure by simply inserting a new Economy "Drop Out" Renewal Link.

Economy Fuses cut annual fuse maintenance costs 80% as compared to the use of "one-time" fuses.

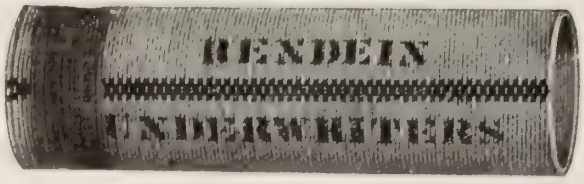
The fibre cartridge, the winged washers which lock the fuse, and the threaded end caps which complete the assembly are virtually indestructible and are used over and over again.

Economy was the first line using inexpensive bare renewal links for restoring blown fuses to their original efficiency to be *Approved In All Capacities* by the Underwriters Laboratories.

For sale by all leading electrical jobbers and dealers

ECONOMY FUSE & MFG. COMPANY OF CANADA, LTD.

Unity Bldg., Montreal, Canada



"RENDEIN UNDERWRITERS" LINEN HOSE

Made and labelled strictly in accordance with the requirements and specification of the Associated Factory Mutual Fire Insurance Companies, and the National Fire Protection Association, as an Unlined Linen Fire Hose for inside fire protection.

"MOUNT ROYAL" LINEN HOSE — **Made in any length and capable of withstanding any pressure up to 400 pounds**

"GULF LINEN HOSE" — **Made in any length and capable of withstanding any pressure up to 300 pounds.**

WE have had the benefit of over forty-nine years' experience in the manufacture of Linen Fire Hose, and the **"Niedner's"** Linen Hose product is known the world over, as it represents good honest quality and unfailing reliability. We are the leading and largest manufacturers of this kind of product in the world.

Our **"Underwriters"** Linen Hose is approved and endorsed by the Associated Factory Mutual Fire Insurance Companies, and the National Fire Protection Association of the United States, and all the Canadian Fire Underwriters' Associations.

We guarantee our Linen Hose to be standard quality, and to be exactly as represented in every way.

Full information cheerfully given at all times

Chas. Niedner's Sons, Coaticook, Quebec, Canada

WELLAND VALE TOOLS

Have been on the MARKET for 50 YEARS, and are still the STANDARD for QUALITY and DURABILITY

Saws, Axes,
Picks, Mattocks,
Grub Hoes, Crowbars,

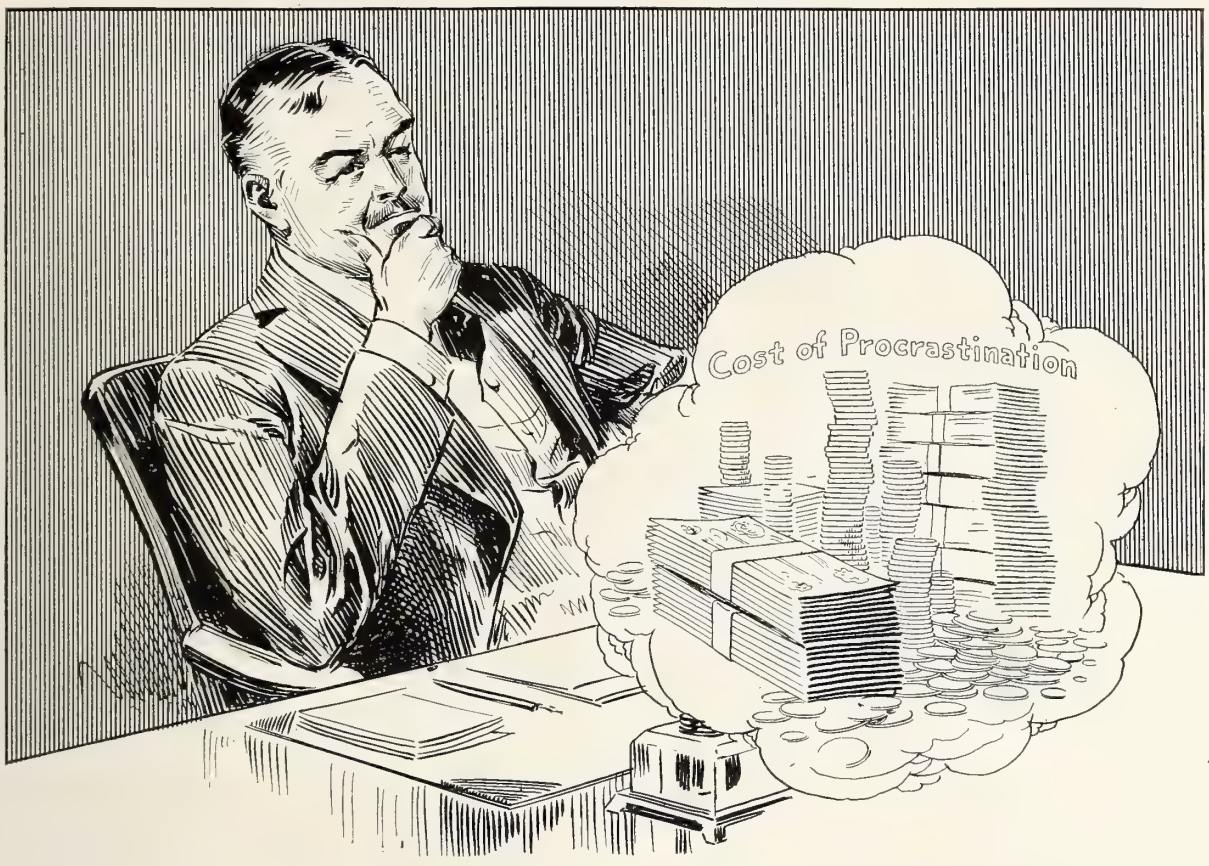
TRADE MARK
ESTABLISHED 1869

Agricultural Forks,
Hoes, Rakes, Scythes,
Hand Cultivators

Apply for Catalogue — Special Attention to Export Orders

The Welland Vale Manufacturing Co. Limited

ST. CATHARINES - CANADA



Can You Really *Afford* a Fire?

THERE are many things that you can afford better than a fire. Even if your insurance policy looks ample to pay every cent of your material loss—it will never pay the big intangible losses that really measure the cost of nearly every fire. It will not, for instance, keep your employees busy, or your sales force together. It will not fill the orders that are already on your books, nor those that keep on coming in just as long as your going business keeps on going.

It will not pay for contracts made in advance, nor for advertising investments, nor in fact will it begin to pay even a small part of your real losses.

Why wait and see? Why not beat the fire in advance? Why not install Grinnell Automatic Sprinklers ***now***?

Day and night the Grinnell "Silent Sentinel" is on the job—only a few seconds after the fire starts, "click" and it is deluged with a remorseless rain, that needs no watchman to set it in motion, because ***when the fire starts the water starts.*** And your insurance man will tell you that this protection really costs you nothing—the saving on your insurance premiums pays the whole cost.

IMPORTANT

Heretofore the underwriters have often required a tank supply for automatic sprinklers in addition to the city mains. Now, however, Grinnell Sprinkler equipments can often be installed without a tank. Don't "think it over" without the facts to guide you. Write us for actual figures to-day.

GRINNELL COMPANY

FOUNDED 1850

OF CANADA, LIMITED

TORONTO, ONT.—2440 Dundas St. West
WINNIPEG, MAN.—914 Somerset Building
MONTREAL, QUE.—10 Cathcart Street
VANCOUVER, B.C.—1140 Hamilton St.

Complete Engineering and Construction Service on Automatic Sprinklers
Industrial Piping, Heating and Power Equipments. Fittings, Pipe, Valves

Grinnell Automatic Sprinkler System — When the fire starts the water starts

"Below Par" Files
Are Dead Files

Files that have even begun to lose their edge should be thrown into the file graveyard at once.

They are worse than useless, because they not only do poor work but waste valuable time—which comes high nowadays.

Buy Famous Five Files, the standard for over fifty years, and you will not have to discard them before they have done their full stint.

They are made of special steel, accurately cut and thoroughly hardened.

The Famous Five brands are:

Kearney & Foot
Great Western
American, Arcade
Globe

MADE IN CANADA BY



NICHOLSON FILE CO.
PORT HOPE
ONTARIO



By courtesy of Monarch Knitting Co., Dunnville, Ont.

COLOR WORK OF THE *QUALITY* SHOWN IS A SPECIALTY WITH US.
COLOR WORK *PAYS* AND "IT PAYS TO USE THE BEST."

SOUTHAM PRESS LIMITED

TORONTO CANADA'S LEADING COLOR PRINTERS *MONTREAL*

WE SPECIALIZE ON HIGH-GRADE

COATED PAPER

FOR COLOR AND FINE HALF-TONE WORK

Luxacoted Porcelain Book

Red Seal Coated Book

TRADE  MARK

ALSO

Coated Litho, Suede Finish Coated Book

AND

Coated Folding Boxboard

PROTECTED BY REGISTERED TRADE MARKS

MADE IN CANADA BY

RITCHIE & RAMSAY, LIMITED

TORONTO

CANADA

Western Agents: John Martin Paper Co., Limited, Winnipeg-Calgary

STAUNTON WALL PAPERS

MADE IN CANADA

SINCE Canada is an integral portion of the British Empire, these Wall Papers reveal the same careful manufacture and dependable qualities that have long been recognized as an outstanding feature of British-made goods.

For the coming season all patterns are made in the popular standard width of 22 inches.

Original Designs **Effective Finishes**
New Treatments **Delightful Colorings**

All the latest ideas in Wall Paper Manufacture are in evidence.

Staunton "Semi-Trimmed" Papers

The selvages are accurately severed in process of manufacture and may be easily removed when the goods are being hung. They save time and labor and prevent half the disorder that usually accompanies paperhanging.

We cordially invite correspondence from the trade

STAUNTONS LIMITED

WALL PAPER MANUFACTURERS

TORONTO - CANADA

Riordon Sales Company Limited

Montreal

FINEST QUALITIES IN BLEACHED AND UNBLEACHED

SULPHITE FIBRE, WOOD PULP FOR PAPER MILLS

SULPHITE SCREENINGS, SPRUCE, PINE, AND HARDWOOD LUMBER, LATH, CEDAR SHINGLES, RAILWAY TIES, FENCE POSTS, LIQUID CAUSTIC SODA, WASTE SULPHITE LIQUOR, CONDENSED

SALES OFFICE:
MONTREAL, P.Q.

T. J. Stevenson — Geo. E. Challes

Sales Managers


COPPER & BRASS
BROWN'S
QUALITY
ROLLING MILLS
THE MARK OF QUALITY
Canada's Pioneer
Mfrs. of Brass and
Copper Products
BEAVER BRAND
Brass, Copper
Nickel Silver
Sheets, Rods
Let us quote on your requirements in these metals. We have the plant and facilities to give you the quality of material and the service you are looking for.
BROWN'S COPPER & BRASS
ROLLING MILLS LIMITED
NEW TORONTO
ONT.



A LONG TIME AGO

A long time ago, before Railways had solved the transportation problem, McCLARY'S men harnessed their horses to wagons and peddled their Wares. They were hardy men. In the country places, along the crude old Ontario roads, they made their way, accepting with good grace all the hard rebuffs nature and mankind handed out.

These men were successful. They had good wares to sell and buyers knew it. They typified the loyalty which enabled John McClary to pass successfully beyond their amateur methods of selling to a better, brighter day.



McClary's

LAKE STATE

Cast-Iron Cooking Range

made by McCLARY'S 45 years ago has been in constant use ever since and is still in active operation every day in the week in the kitchen of Miss S. N. Paul, 284 York Street, London, Ont. Note the good state of repair.

McClary's

Factories at - London, Montreal, Brantford

Warehouses and Branch Offices at

London, Toronto, Montreal, Winnipeg, Vancouver, St. John, N.B.
Hamilton, Calgary, Saskatoon, Edmonton



AND TO-DAY

And to-day, the evolution of selling has brought McCLARY'S to the use of the Moving Picture Machine. Films, illustrating the process of manufacture, from the designing to the last inspection of Stoves, and the cutting of shapes to the labeling of wares, have been prepared for dealers' entertainment and instruction.

As in selling, so in manufacture, McCLARY'S have moved forward seventy-three years, till they stand supreme in 1920 as the largest Manufacturers of Stoves and Furnaces in the British Empire.



McClary's

KOOTENAY RANGE

McCLARY'S Kootenay Range is the standard bearer of McCLARY'S highest grade quality from Coast to Coast. Handsomely nickeled, attractively finished and soundly constructed.

McClary's

SUNSHINE FURNACE

The Master Furnace of Canada—installed and operated by thousands of Canadian Householders. A heating plant with every modern convenience.



McClary's

Factories at - London, Montreal, Brantford

Warehouses and Branch Offices at

London, Toronto, Montreal, Winnipeg, Vancouver, St. John, N.B.
Hamilton, Calgary, Saskatoon, Edmonton

B B

Everything in
Rough or Dressed

LUMBER

Especially Spruce
and White Pine

Completely Equipped
Planing and Re-Saw
Mills at Your Service

We also invite your inquiry for
KRAFT AND UNBLEACHED

SULPHITE PULP



BATHURST LUMBER CO. LIMITED
BATHURST, N.B.

B B

PROPELLER WHEELS
(Iron, Steel or Bronze)

SHIP DECK MACHINERY

WATER WHEELS

MILL GEARING, WOOD COGS

STEEL CASTINGS

Quality Guaranteed

THE WM. KENNEDY & SONS, LIMITED

MALLEABLE IRON CASTINGS

BEST QUALITY

Let Us Know Your Requirements

THE CANADIAN MALLEABLE IRON CO. LIMITED

OWEN SOUND, ONTARIO



So They Called the Expert In

Fred Brock of Baxter and Company was a good Office Manager. That was an acknowledged fact, both among his business associates and the boys at the club. People discussed his organizing ability and the capable staff with which he had surrounded himself.

ONE thing troubled Fred, though: his filing system and certain details of office routine. In the rush of two years of unprecedented business he'd no time to re-organize his system. As a result it had become unwieldy; papers were becoming increasingly difficult to find; complaint reports were coming in with greater frequency from the "Chief" and other department executives, so Miss Thompson, the filing clerk reported.

That was just a year ago—before Fred Brock called to his aid the System Service Expert of "Office Specialty". His business day is much pleasanter for him now—since the "Office Specialty" System Expert analyzed his existing systems and submitted a plan that would not only remedy the immediate trouble, but make ample provision for natural expansion for some time to come.

This is the type of expert service that "Office Specialty" is rendering to its thousands of clients to-day—a concrete service backed by the resources of a centralized System Department whose cumulative experience in solving filing and record-keeping problems in many different kinds of business is offered to you in your individual problem without fee or charge, or without reservations of any kind.

SYSTEM SERVICE

"Office Specialty" System Service Experts are men who merit the name *expert*. They are trained, practical men. They will gladly make your office routine, record-keeping, or filing problems their own. Their value to themselves, and to us, depends upon the value of their service to you.

Put your office routine or record-keeping problem up to our nearest Service Store.

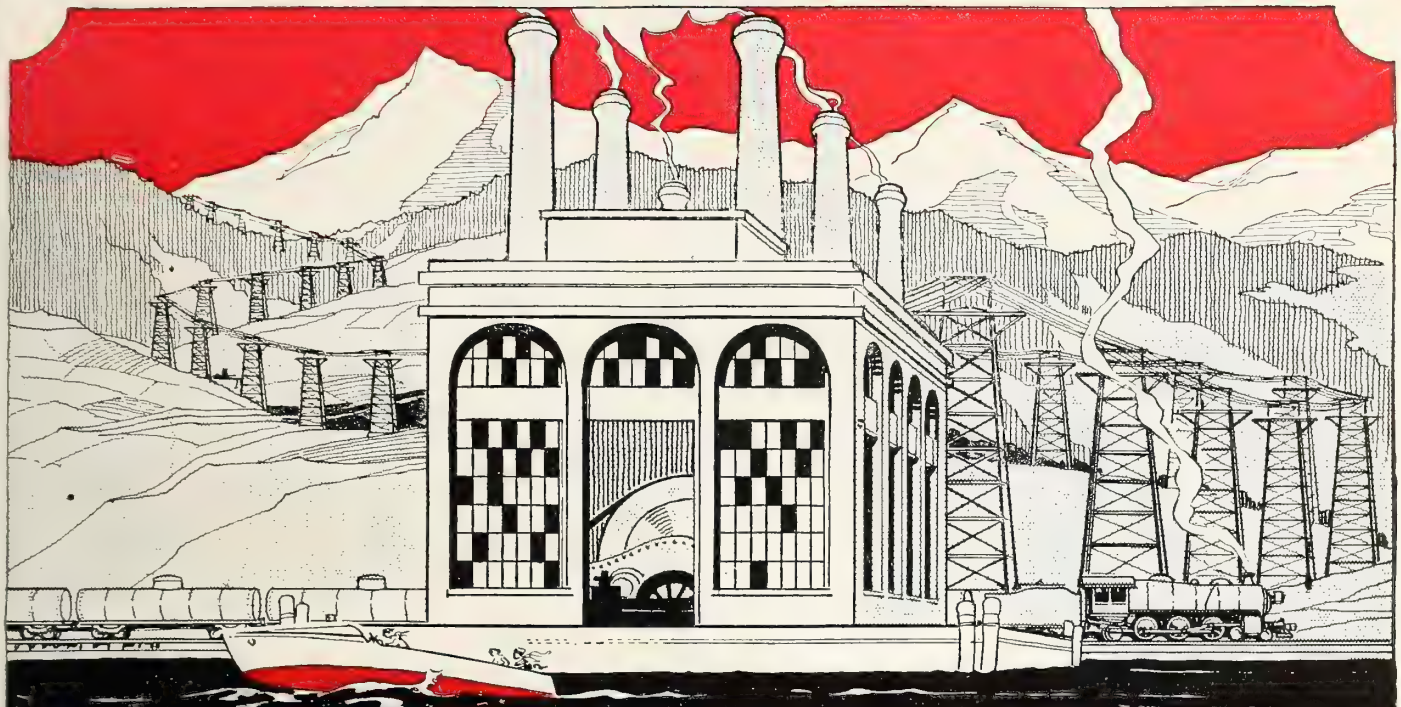
THE OFFICE SPECIALTY MFG. CO. LIMITED
Home Office NEWMARKET Canada

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Filing Equipment Stores at:

Toronto Montreal Ottawa Halifax Hamilton Winnipeg Regina Edmonton Calgary Vancouver

OFFICE SPECIALTY
FILING SYSTEMS



IMPERIAL

Lubricants

For Manufacturing, Mining and Milling

CYLINDER OILS

Imperial Valve Oil
Imperial Cylinder Oil
Imperial Capitol Cylinder Oil
Imperial Beaver Cylinder Oil
Imperial 20th Century Cylinder Oil

ENGINE OILS

Imperial Kearsarge Engine Oil
Imperial Solar Red Engine Oil
Imperial Atlantic Red Engine Oil
Imperial Junior Red Engine Oil
Imperial Bayonne Engine Oil
Imperial Renown Engine and Dynamo Oil
Imperial Standard Gas Engine O I
Imperial Arlo Compressor Oil

The Supreme Test—Service

THERE is only one test for a lubricant and that is "service"—service rendered under service conditions. The full benefit from capital sunk in expensive machinery can only be reaped through *correct* lubrication—*the best lubricants properly applied.*

Imperial Lubricants need no introduction. They are known and used from coast to coast. They are graded for every type of machine; are Canadian made from the finest crudes and readily obtainable in all parts of the Dominion.

Choose your lubricants from the Imperial line. Take advantage of our offer of free consultation. Both aim to assist you to insure that production shall bear a true relation to the time, thought and money expended in equipment.

Correct lubrication means the selection and proper application of the right lubricant for each machine. Correct lubrication actually promotes maximum profits, increasing production per unit and decreasing depreciation charges, fuel and repair bills.

Imperial Lubrication Engineers are at your service for consultation in solving troublesome lubrication problems. Their advice is free. Write to us at 56 Church St., Toronto, or to any of our branches.

IMPERIAL OIL LIMITED

Power · Heat · Light · Lubrication

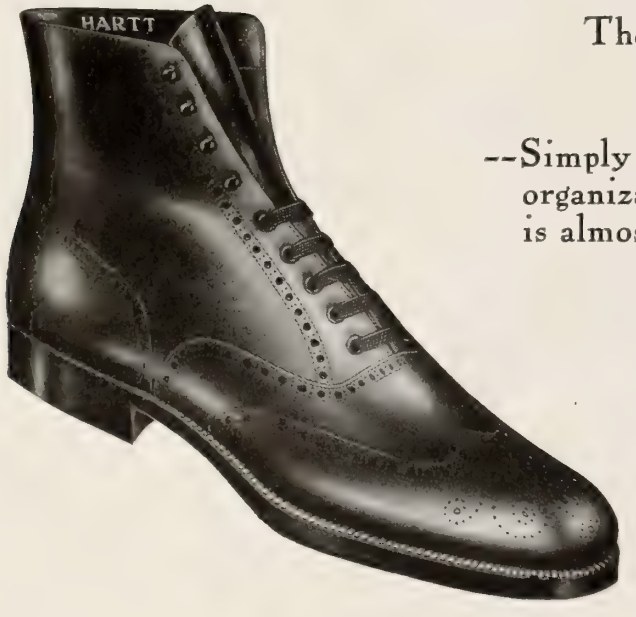
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"Canada's Best Shoemakers"

FREDERICTON

NEW BRUNSWICK

The Hartt Boot & Shoe Co., Limited



There's no secret about
"HARTT" Quality

--Simply the best leathers used by an organization with whom QUALITY is almost a religion.

Let Us Forget Prejudice

Why cripple Canadian enterprise further with the prejudice that certain things are better if they come from abroad?

Let us recognize the fact that in many lines Canada can equal or excel others.

For instance it is no exaggeration to tell you that no shoe made anywhere on this North American continent, no matter what its price, surpasses the "HARTT" GOLD MEDAL SHOE

CANADIAN TUBE & IRON CO., LIMITED

Manufacturers of

BOLTS and NUTS

Carriage Bolts,
Coach and
Lag Screws,
Tire Bolts
Machine Bolts,
Sleigh Shoe
Bolts,
Plow Bolts,
Track Bolts,
Square Nuts
Hexagon Nuts,
Boiler Rivets,
Tinners'
Rivets, Etc.

WROUGHT PIPE

Black and Galvanized, sizes ⅛ in. to 4 in., is thoroughly inspected and tested to 600 lbs. pressure, and every length is branded with our trade-mark.

We also Manufacture

NIPPLES and COUPLINGS

Black and Galvanized in all sizes

Works: Lachine Canal, Montreal

Selling Agents for

Canadian Rolling Mills Co., Limited

Works: Lachine Canal, Montreal

MANUFACTURERS OF

Bar Iron and Steel

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ALSO

Twisted Steel Bars for Reinforcing

Selling Agents for

Colonial Wire Mfg. Co. Limited

Works: Lachine Canal, Montreal

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SMOOTH STEEL WIRES

Bright, Annealed, Oiled and Annealed, Coppered and Coppered Spring

TINNED MATTRESS WIRE
BROOM WIRE FINE WIRES
(Plain and Galvanized)

FENCE STAPLES
WIRE NAILS
WOOD SCREWS

PUMP RODS
(Plain and Galvanized)

TRADE MARK

Machine Bookkeeping ?

CONSIDERING accuracy, legibility and economy, the repeated choice of the public is the machine-written form of presenting data and entering records.

There is no longer a question about the Machine method of making Ledger entries being practical; and while many of the most progressive Banks and Commercial Organizations in Canada have had installations of our Equipment for Mechanical Ledger Posting, there are many others who would profit greatly by the adoption of the idea.

To the latter we offer our services; and 25 years' experience in the Loose-Leaf business, with a national reputation for building "quality" product, should certainly have weight with those about to decide on changes in their system methods.

WE INVITE CONSULTATION
Write Our Service Department

Copeland-Chatterson, Limited

LOOSE-LEAF AND STEEL FILING EQUIPMENT

Brampton, Ontario


Guaranteed Purity
Reliable Service
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BLOWPIPES - REGULATORS
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8 FACTORIES IN ACTUAL OPERATION AT
HALIFAX-MONTREAL-TORONTO-LONDON-SUDBURY
WINNIPEG-CALGARY-VANCOUVER
Additional Factories in course of Erection
ANNOUNCEMENT
Our new plant at London, Ont., is now operating at full capacity.
All Oxygen orders for consumption in the London district and in Western Ontario will, from now on, be executed from London, and our customers will derive the full benefit of the saving in freight while being assured of an unsurpassed service.
All orders for Ontario to be sent as usual to our Toronto Office, Confederation Life Building)



Built For A Famous Surgeon

THOSE of you who happen to know this famous surgeon wonder how he stands the prodigious strain of his work. One of the reasons is his love for flowers, and the relaxation given by having them always about him.

Ask him what about a greenhouse for tired nerves, and you get no uncertain answer in the affirmative.

The wondrous thing about a greenhouse is that it makes the happy folks happier, and puts real honest-to-goodness joy into those who had sort of a notion that smiles were farther apart than they used to be.

A greenhouse is an all-year tonic. A joy-builder and a happiness-maker. Therefore, have one. Send for Two G's Booklet. It's a good starter.

Lord & Burnham Co. Limited of Canada

Builders of Greenhouses and Conservatories

TORONTO
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FACTORY: St. Catharines, Ont.



Beaver Brand Hardwood Flooring and Lumber

BEAVER FLOORING BRAND
TRADE MARK REGISTERED

We manufacture hardwood flooring of Plain Red Oak, Quartered White Oak, Birch, Maple and Beech.

We can supply any quantity of flooring for new buildings, residences, or factory repair work.

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T. R. Dunn Lumber Company
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LIMITED
Toronto, Ont.





In Your Business—

Things not fully understood by the workers are destructive and make themselves felt unfavorably throughout the plant.

Lacl of appreciation of your methods and efforts, exploitation of the workers' minds by outsiders, and other causes, through misunderstanding, make inroads which you feel in decreased production.

The great War brought forth no greater miracle than knowledge of the far-reaching and costly effects of wrong thinking.

Everywhere today plants in various industries are feeling the effects of misunderstanding and wrong thought in their workers' minds. Low production proves it. Industrial unrest, demoralization, antagonism, spoilage and waste, part-time workers, labor turn-over, etc., all prove it.

The Sherman Organization of 1000 Specialists

deals constructively with the thoughts and feelings of workers. Our unique, sound methods bring increased production and harmonious feeling. Our staff of selected, educated, and trained specialists, and our years of successful experience in the industrial field thoroughly equip us to serve profitably in any plant, large or small, in any industry.

You can test Sherman Service in your business without interruption or delay

Put it up to us to prove in your plant that we can increase your production. Phone, wire, or write our nearest office.

SHERMAN SERVICE LTD.

Production Engineering
Industrial Co-ordination

10 ADELAIDE STREET, EAST
TORONTO, CANADA

Largest organization of its kind in the world
Founded 1910



Every account is ready for instant settlement

when the N. C. R. System for charge accounts is used

WHEN a customer comes into your store and wants to know how much she owes, you can tell her the amount instantly.

No time is wasted in hunting for her account in a large ledger. No time is wasted adding up the items or striking a balance. There is no worry about the accuracy of the figures.

Your clerk merely looks at the last charge slip filed under the customer's name in the N. C. R. Credit File, and there is the total of her account to date.

This saves time for the customer, for the clerk, and for you.

You have the satisfaction of knowing that the amount she pays is right.

You know the amount is right, because with the N. C. R. Credit File you cannot forget to make charges. You cannot forget to credit money received on account. Mistakes cannot go undetected.

Fill out this coupon and mail it to-day

Dept. 26
The National Cash Register Co. of Canada, Ltd.
97 Pelham Ave.,
Toronto, Ont.

Please give me full particulars about the N. C. R. Credit File way of handling credit accounts.

Name.....

Business.....

Address.....

The National Cash Register Company of Canada, Limited

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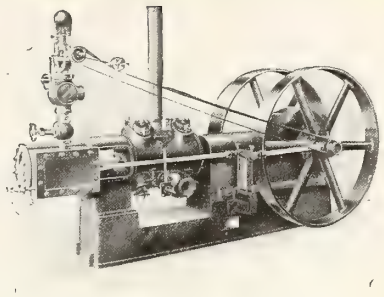
Calgary	714 Second Street W.	London	350 Dundas Street
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Toronto	40 Adelaide Street	St. John	85 Prince William Street
Winnipeg	213 McDermot Avenue	Saskatoon	265 Third Avenue, S.

FACTORY: TORONTO, ONTARIO

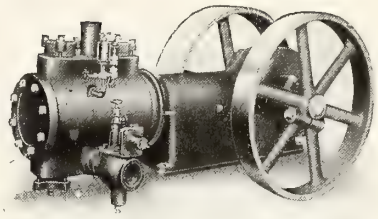
Some Questions to Help You Decide

on the Compressor you want, and a few machines that answer them

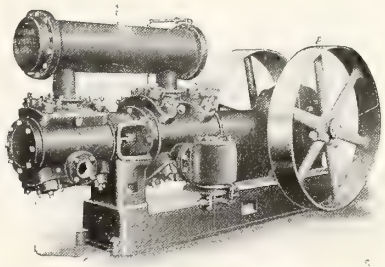
1. DOES it give maximum capacity for minimum space because it is a high speed Compressor designed to give high volumetric efficiency at all speeds and not a slow speed machine speeded up?
2. CAN its rating be taken as a fair measure of its actual capacity or will the actual volume of air delivered fall short of its rated capacity?
3. IS it economical in power consumption or will it waste power through friction and heat losses due to insufficient cooling?
4. IS it strong enough to stand up under long hard service with varying conditions of load and are all of the working parts amply protected against dust and dirt?
5. DOES it throw oil, or is it provided with an automatic lubricating system which retains the oil and keeps the bearings cool at all speeds?
6. ARE its valves and regulating mechanism designed so as to function properly under different loads without loss of efficiency or capacity, and do all its other parts appear to give reasonable assurance against inconvenience and interruptions through breakdowns?



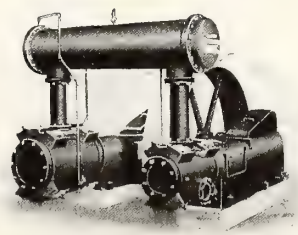
"FL-1" Steam Driven, Single Stage Compressor



"EL-1" Power Driven, Single Stage Compressor



"EL-2" Power Driven, Two Stage Compressor



"PLB-2" Power Driven, Two Stage Compressor

Our nearest branch will be glad to tell you more about any of these machines. A post card will do

Canadian Ingersoll-Rand Company Limited

Sydney Sherbrooke Montreal Toronto Cobalt
Winnipeg Nelson Vancouver

"Do It With Air"

Norton Grinding Wheels
Manufactured in Hamilton

The Norton Company of Canada, Ltd., was incorporated on December 26, 1919. The new Norton grinding wheel plant in Hamilton, Ontario, was put in operation in March with an organization of skilled and experienced mechanics from the plant of Norton Company at Worcester, Massachusetts.

Alundum grinding wheels are being manufactured by both the vitrified and silicate processes and the plant is already giving Norton service to Canadian users of these products.

The plant is modern in every particular and is operated by a force of men with the advantages of long experience at the Norton Company which gives customers assurance of the high standard of Norton quality widely recognized throughout the world by grinding wheel users. With the plant located in Canada better delivery service is insured Canadian customers than they have hitherto enjoyed.

Orders should be placed as in the past with the established agencies for Norton products—Canadian Fairbanks-Morse Company and F. H. Andrews & Son.

Shipments of Alundum Wheels, vitrified and silicate processes, are made from Hamilton. Crystolon wheels and other special products are shipped from Worcester, Massachusetts.

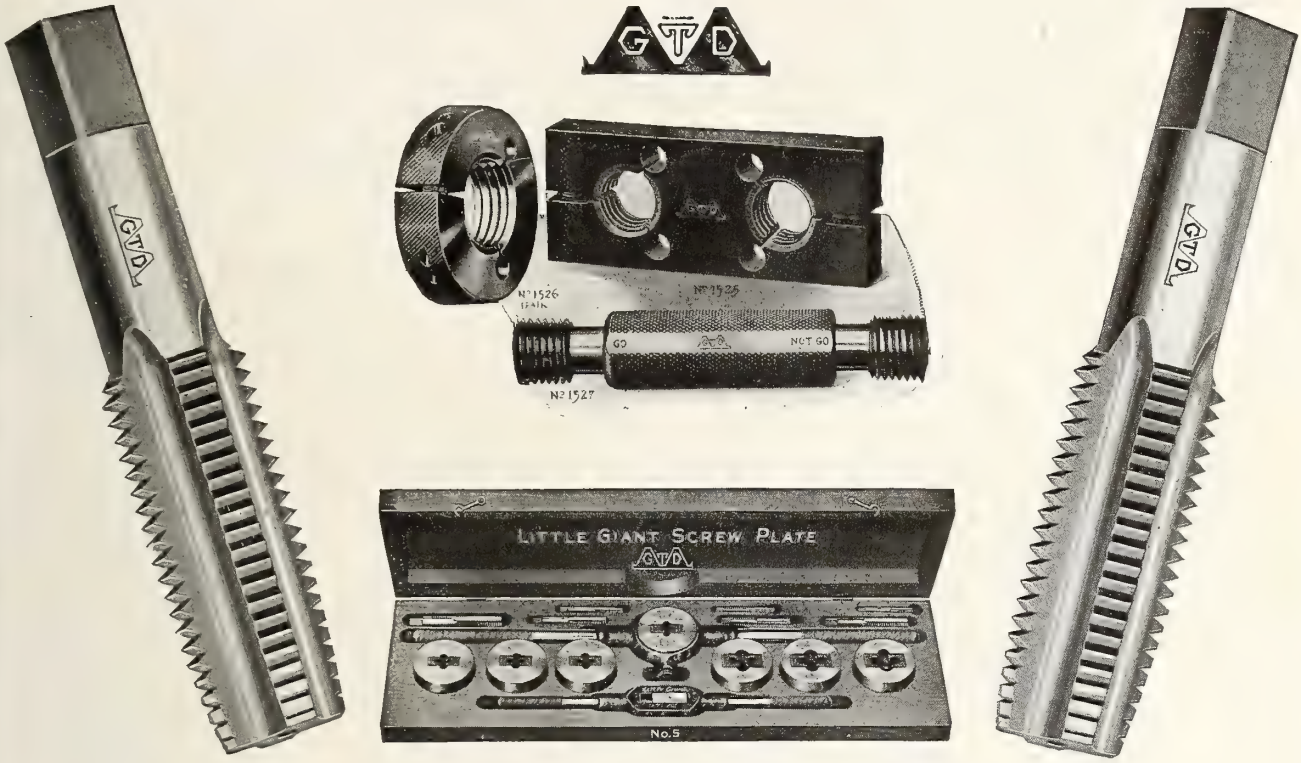
Norton Company of Canada, Limited

HAMILTON, ONTARIO

CANADIAN AGENTS:

The Canadian Fairbanks-Morse Co., Limited, Montreal, Toronto, Ottawa, St. John, N.B., Winnipeg, Calgary, Saskatoon, Vancouver, Victoria. F. H. Andrews & Son, Quebec, Que.

"MADE IN CANADA"



SCREW-PLATES

The "Little Giant" Screw-Plates have come to be recognized as the standard equipment for repair work for garages, repair and machine shops. "Little Giant" Screw-Plates are furnished in different assortments and sizes to suit all kinds of threaded work.

TAPS

Our Taps are noted for their excellent workmanship, easy cutting and long-wearing qualities.

GAGES

Our Plug and Templet Gages are made by skilled workmen, with the latest improved appliances for acquiring strict accuracy, precision and finish.

USE THIS COUPON

WELLS BROS. CO. OF CANADA, Ltd. Galt, Ont.

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☐ Small Tools
☐ Pipe Tools ☐ Gages

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Firm .....

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Position .....

I.C. 2002

Little Giant

WELLS BROS.

Company of Canada Ltd. Galt, Ontario

Canadian Plant of the Greenfield Tap & Die Corp

World's Largest Manufacturers of Screw Cutting Tools.

"MEAD-MORRISON"

CANADIAN MM CO

CANADIAN MM CO

PRODUCTS

Manufactured in Canada

Steam Hoists	Coal Crushers
Electric Hoists	Weighing Larries
Mine Hoists	Car Pullers
Bridge Erecting Engines	Transporters
Clam Shell Buckets	Hoisting Towers
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Dredges	Swinging Engines
Coal and Ore Handling Plants	Cable Railway Systems
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Ashes Handling Machinery	McCaslin Bucket Conveyors

DEPENDABLE SERVICE

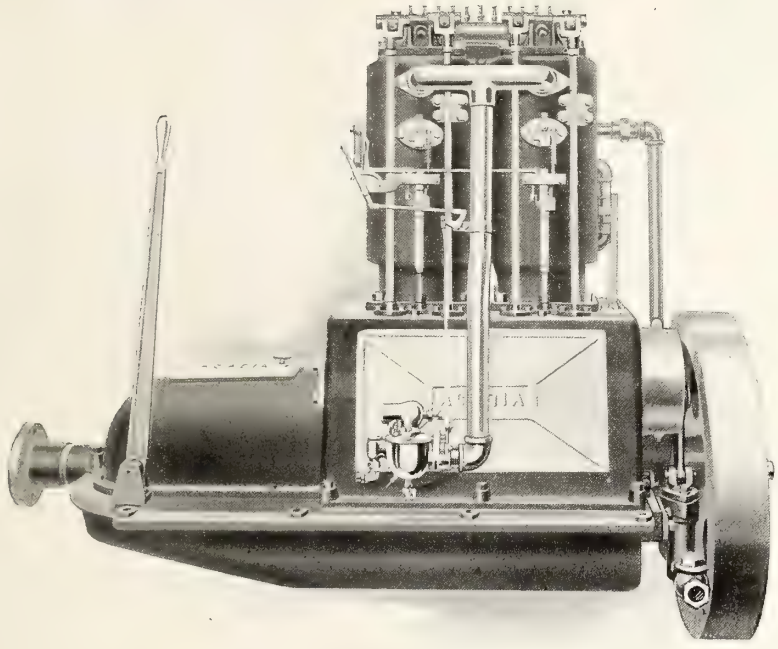
Contractors for Complete Material Handling Plants

PUT YOUR PROBLEM UP TO US!

CANADIAN MEAD-MORRISON CO
LIMITED
285 BEAVER HALL HILL
MONTREAL
WORKS: WELLAND ONT.

"ACADIA" ENGINES

ACADIA
VALVE
IN
HEAD



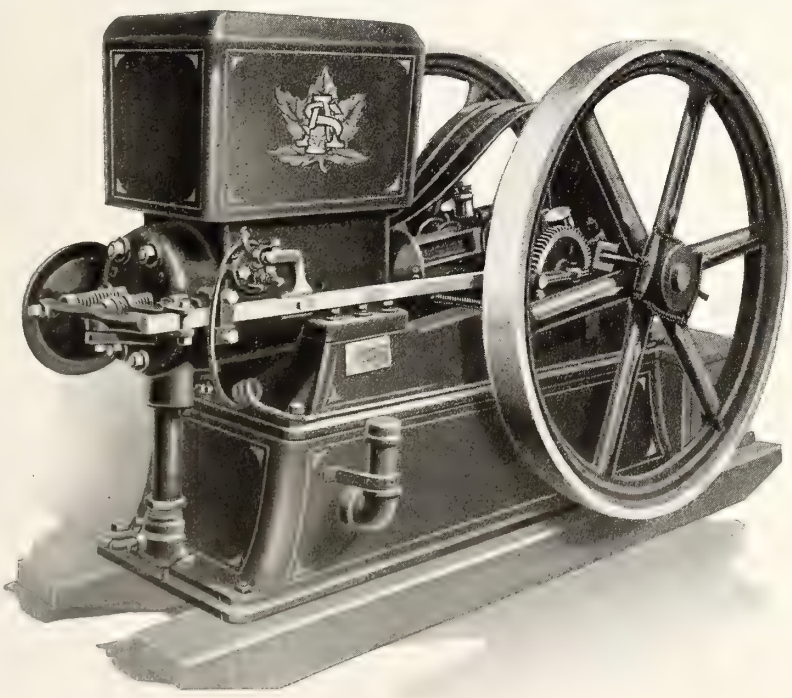
TWO
CYLINDER
FOUR
CYCLE

18-20 H.P. MARINE ENGINE
Strong, economical, easy to operate, of the most modern design, with the latest improvements

SIMPLE IN
CONSTRUCTION

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100% SERVICE



EASY TO
OPERATE

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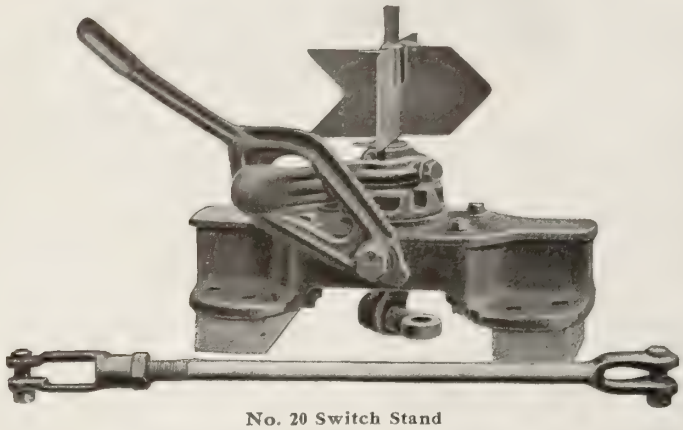
100% VALUE

SIZES 1¾, 2½, 3½, 4½ and 6 H.P.
Battery, Magneto or Dual Ignition

Acadia Gas Engines, Limited, Bridgewater, N.S.

BRANCH OFFICE AND WAREHOUSE - - - ST. JOHN'S, NEWFOUNDLAND

RAMAPO Automatic Safety Switch Stands



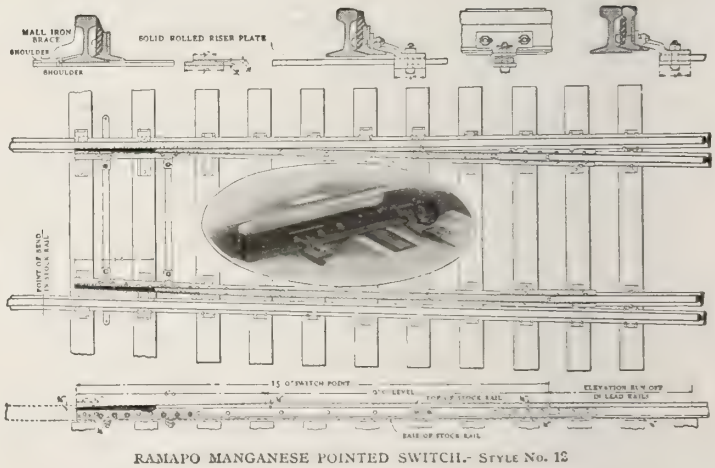
No. 20 Switch Stand

Railroads should use Ramapo Manganese Pointed Switch Style No. 12

RAMAPO

Manganese Frog, Style No. 1

This Reinforced Manganese Frog will in Hard Service outwear all rail frog Four to Six Times.



RAMAPO MANGANESE POINTED SWITCH.- Style No. 12



This is the RAMAPO MANGANESE POINTED SWITCH which will outwear SIX TO TEN ordinary all rail switch points. Try it somewhere in the hardest place you know of.

CANADIAN RAMAPO IRON WORKS LIMITED

NIAGARA FALLS, CANADA



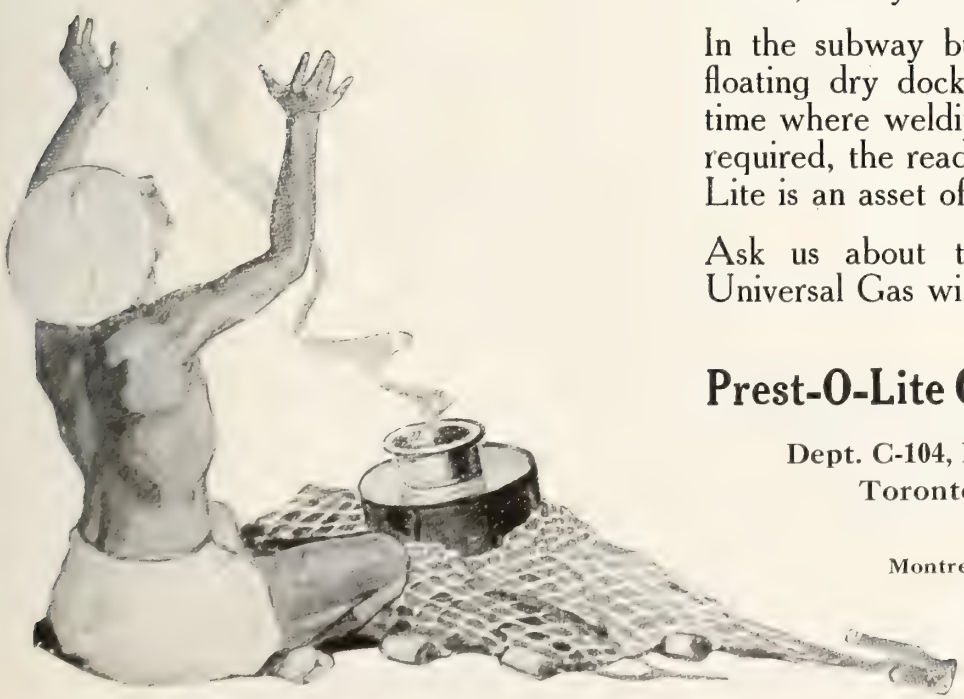
The Genie of the Bottle

LIKE the Genie from the "Arabian Nights," Prest-O-Lite is a wonderful force confined in a small cylinder.

It is subject to the command of its master---the trained welder and cutter. Under his direction it performs feats of wonder---anywhere, at any time.

In the subway builder's excavation, in the floating dry dock, in fact any place---any time where welding and cutting metals are required, the ready portability of Prest-O-Lite is an asset of genuine worth.

Ask us about the service plan of the Universal Gas with the Universal Service.



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Toronto - Canada

BRANCHES:
Montreal Toronto Winnipeg

Plants at Toronto, Ont.
Merritton Ont.
St. Boniface, Man.
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ELECTRO METALS
Limited
Welland - Canada

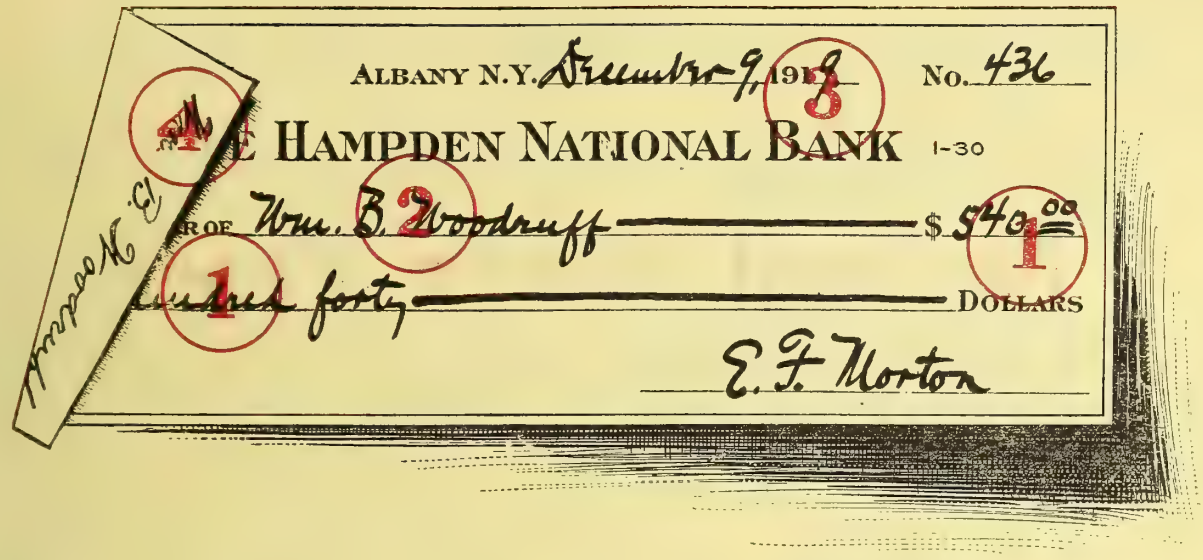
Manufacturers of

Electrolytic Ferro Silicon
15% and up

Electrolytic Silico Manganese

Carbon Electrodes
For use in Electric Furnaces
All sizes

Works and Head Office:
WELLAND - CANADA



How much of a Cheque ought to be protected?

Certainly not the "amount" (1) only. The "payee's name" (2) is altered perhaps as often as the amount. The "date" (3) and "endorsements" (4) likewise should be safe.

National Safety Paper

will protect every part against fraud. Any attempted alteration of a cheque on this paper, by knife, acids, alkalis, or other bleaching agents will produce a conspicuous stain in the paper, which is an instant warning that the cheque has been tampered with.

National Safety Paper is used extensively throughout the British Empire and the world over. It has been tested nearly fifty years.

When you order cheques, specify National Safety Paper. A sample book will be sent upon request.

George La Monte & Son, Ltd.

319 Carlaw Avenue

Toronto, Ont.

Made in Canada

NATIONAL SAFETY PAPER

National Safety Paper

Write upon any sheet of National Safety Paper; note its smooth, easy writing surface.

Once written upon, your record is "indelible" —indelible in the sense that the writing cannot be removed by any method of erasure—knife, or chemicals—without so defacing the paper as to render an alteration easily apparent.

The safety-chemical properties of National Safety Paper are permanent and are not affected by atmospheric or other conditions which often render so-called "safety-tints" valueless.

You can fully protect your cheques, drafts, notes, trade acceptances, or other negotiable documents by specifying National Safety Paper to your printer or lithographer.

Full samples will be sent upon request.

George La Monte & Son, Ltd.

319 Carlaw Avenue, Toronto, Ont.

The Importance of Valve Dependability

Whether the equipment of your plant calls for a few valves or for thousands, it is well to remember that dependable valve service is essential to the efficient operation of the entire plant.

Valve Service is measured by service rendered over a period of years, and by lack of upkeep cost.

JENKINS VALVES

assure dependable and economical service. For upwards of 56 years they have been recognized and used by thousands of leading engineers. Their installation is a guarantee of that perfect valve service which assures actual dividends by eliminating waste time, needless labor and risk of shut-down for repairs or replacements.

Ask your dealer about Jenkins Valves or write for free copy of Catalog No. 8, which pictures and describes in detail the complete Jenkins line.

A Valve for every Service

All genuine JENKINS VALVES have the Diamond Trade Mark cast on the body



Jenkins Brass Globe Valve

Standard Pattern

Suitable for 175 pounds Working Steam Pressure, or 250 Pounds Working Water Pressure

Jenkins Bros.
LIMITED

TRADE JENKINS MARK Jenkins Bros

Head Office and Works: 103 St. Remi St. Montreal, can.

EUROPEAN BRANCH: 6 GREAT QUEEN ST. KINGSWAY. LONDON W.C.2. ENG.

Agencies in all the Principal Countries of the World

TRADE JENKINS MARK Jenkins Bros

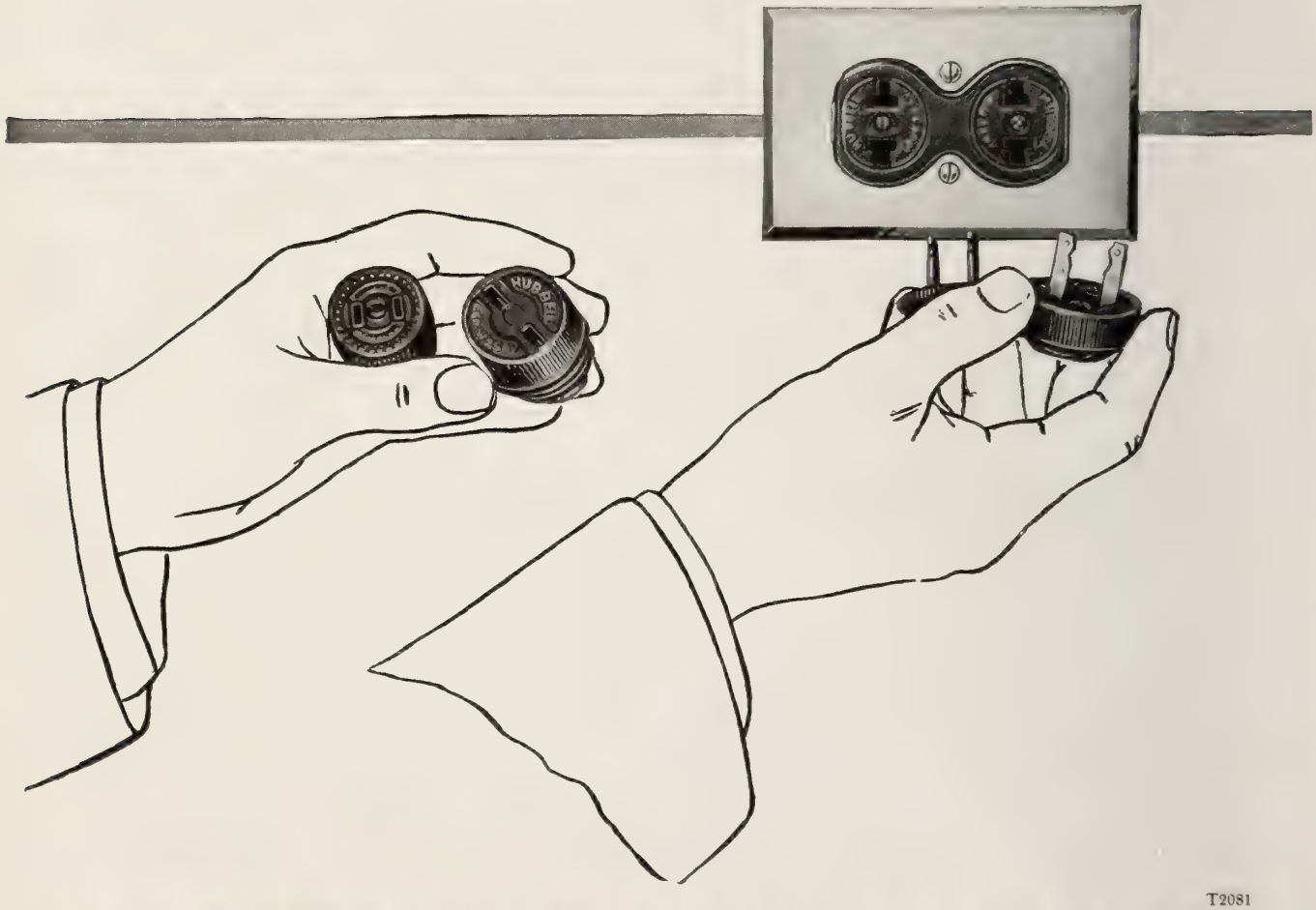
Parallel or Tandem—the T-slot fits both

ANY standard plug cap will fit a Double T-slot Receptacle.

The contact blades are set "Parallel" in the small cap, a Hubbell No. 5964, and "Tandem" in the larger one, a Hubbell No. 5420.

Both of these and in fact any parallel or tandem cap may be used with a Hubbell Double T Wall Receptacle or Current Tap.

These Electrical Specialties lead in quality, workmanship and common sense construction. And in the Hubbell Line will you find the T-slot. Let us send you the details.



T2081

HARVEY HUBBELL COMPANY
OF CANADA LIMITED
ELECTRICAL SPECIALTIES
TORONTO CANADA

CONDULETS



DON'T TAKE A CHANCE
Condulet It

THAT'S good advice for every electrical installation. It means less accidents to workmen and fewer plants destroyed. It pays everyone connected with electrical work to use Condulets.

In the Crouse-Hinds catalogs you have an unerring guide to Conduletting. If you have this information, you can put it to daily use. Catalogs sent upon request.

CROUSE-HINDS COMPANY
of Canada, Limited
TORONTO, ONTARIO CANADA

Condulets Panelboards
Knife Switches Floodlights
Guy Anchors



THE MK SERIES
Door over the fuse compartment cannot be opened when the switch is in the "On" position

Condulet the Job

CROUSE-HINDS

T-2059



"The De Laval Oil Purifier took this dirt and water out of our lubricating oil"

THE DE LAVAL OIL PURIFIER removes water, dirt, grit and fine metallic particles from used lubricating oil. Oil kept clean with the De Laval Purifier materially lengthens the life of the machinery it lubricates. The use of clean oil also reduces the loss of power due to friction and eliminates the dangers of clogged oiling systems. Troublesome emulsions are broken down with the De Laval Oil Purifier and oil is recovered that has heretofore been wasted.

The method is simple, continuous and economical, and restores the oil to its original usefulness.

The Oil Purifier is also used for reclaiming and purifying cutting oil from chips, cutting oil from soda-wash, hardening room drawing and quenching oils, fuel oils, etc.

Write to nearest De Laval office for Oil Purification Bulletin No. 100; also Crank Case Oil Bulletin No. 102

THE DE LAVAL COMPANY, LIMITED

PETERBOROUGH, ONTARIO

MONTREAL WINNIPEG EDMONTON VANCOUVER

DE LAVAL TURBINE EQUIPMENT COMPANY

SELLING AGENTS FOR ONTARIO—DACK BUILDING, 73 KING STREET W., TORONTO, ONT.

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Namco SCREW MACHINE products

Standard—

V., U. S. S. and S. A. E. Cap Screws.
V. and U. S. S. Set Screws.
S. A. E. Plain and Castellated Nuts.
V. and U. S. S. Semi-Finished Nuts.

Special—

Screw Machine Product up to $2\frac{1}{4}$" diameter to customers' specifications.

Owing to the market shortage of raw materials, it is to the customers' advantage that they anticipate requirements as far ahead of use as possible.

THE NATIONAL ACME COMPANY

MONTREAL, P.Q.

De Courcelles **G.T.R.R.**

SHOE MACHINERY

FOR EVERY DEPARTMENT

USMC

FROM LASTING TO FINISHING

GOODYEAR WELT AND TURN SYSTEM

REX PULLING OVER SYSTEM

SHOE FINDINGS TACKS, NAILS RIVETS

No. 5 AND HAND METHOD LASTING MACHINES

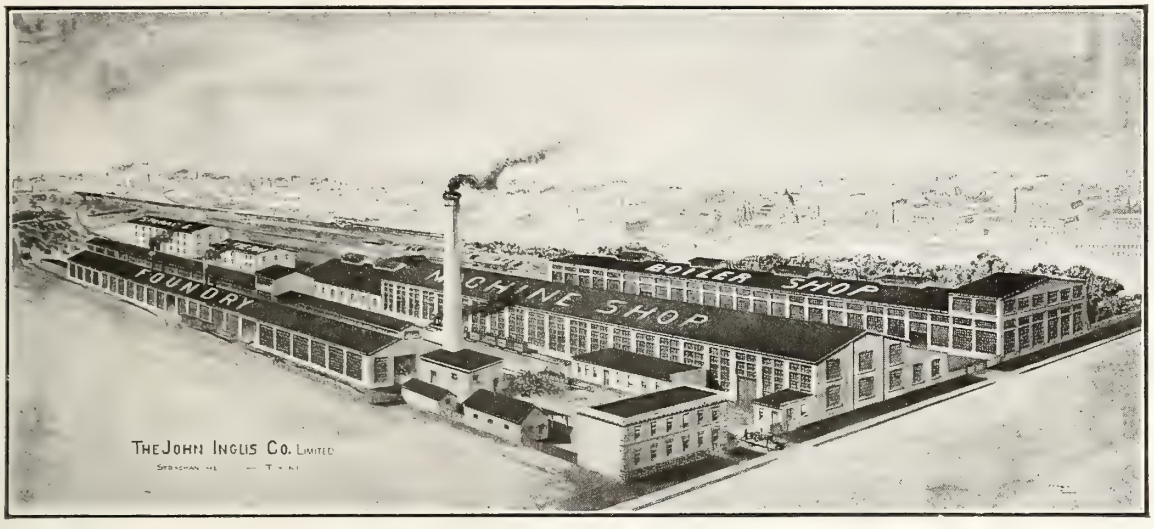
SHOE REPAIRING MACHINERY

Heel Protector Driving, Heel Compressing, Loading and Attaching Machines, Heel Trimming, Breasting, Scouring and Finishing Machines, Loose Nailing and Slugging Machines, Cementing, Buffing and Skiving Machines, Gem Insole Machines, Eyeletting Machines

United Shoe Machinery Co. of Canada, Limited

MONTREAL

TORONTO KITCHENER QUEBEC



Plant of the John Inglis Co., Limited

ENGINES BOILERS AND TANKS

of All Kinds for Any Service

Send us your enquiries

THE JOHN INGLIS COMPANY, LIMITED

Engineers and Boilermakers

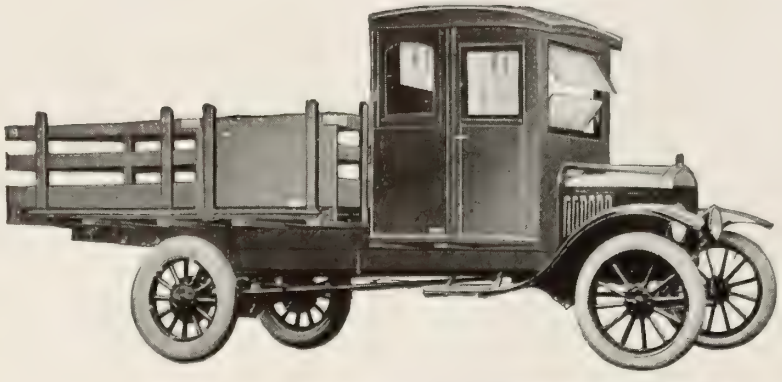
14 STRACHAN AVENUE - TORONTO, CANADA

Representatives in Eastern Canada—JAS. W. PYKE & CO., Limited, 232 St. James Street, Montreal

Ottawa Representative—J. W. ANDERSON, 7 Bank Street Chambers

CARRIAGE FACTORIES Line of Commercial Bodies

For Ford Regular Chassis—Ford Ton Trucks—
Chevrolet—Maxwell—Republic and Traffic Trucks



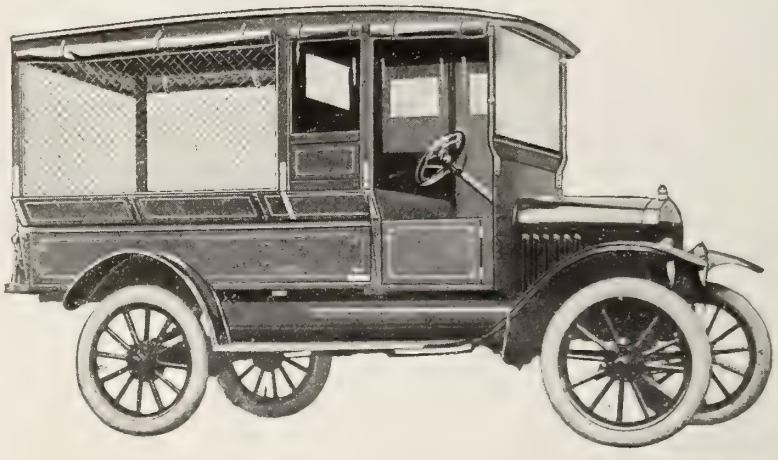
No. 5000

Standard Ford
Stake Body
Loading Space
5′ 6″ x 8′ 4″

No. 5045

Canopy Top
Delivery with
Screens on Sides
and Rear
Loading Space
44″ x 60″

FOR FORD
REGULAR CHASSIS

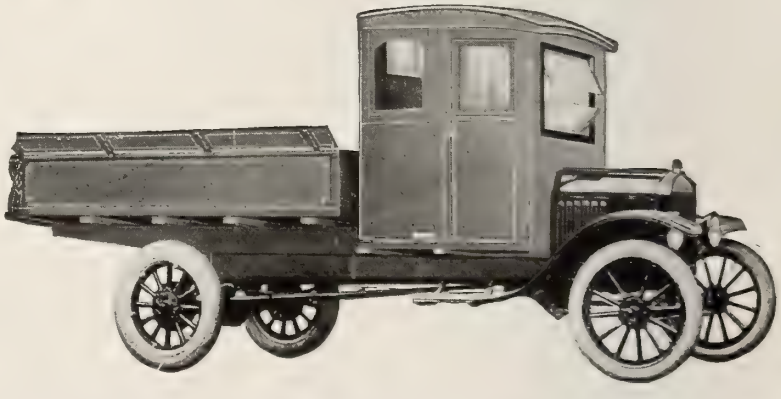


We supply a
Body of Same
Style but with
Loading Space
44″ x 96″

No. 5015

Wide Express Body
with Closed Cab
Loading Space
60″ x 96″

FOR FORD TON TRUCK



Ask for Catalogue of Ford Truck Bodies. We Manufacture a Complete Line

Orders are now being booked for fall delivery. Write us at once and secure protection against shortage of bodies for Fall and Spring Trade
Abundant supply of advertising matter is available for dealers handling our bodies

CARRIAGE FACTORIES LIMITED
ORILLIA, ONTARIO

FACTORIES AT ORILLIA, ALEXANDRIA, ONTARIO, AND MONTREAL, QUEBEC

Provincial Paper Mills
Limited

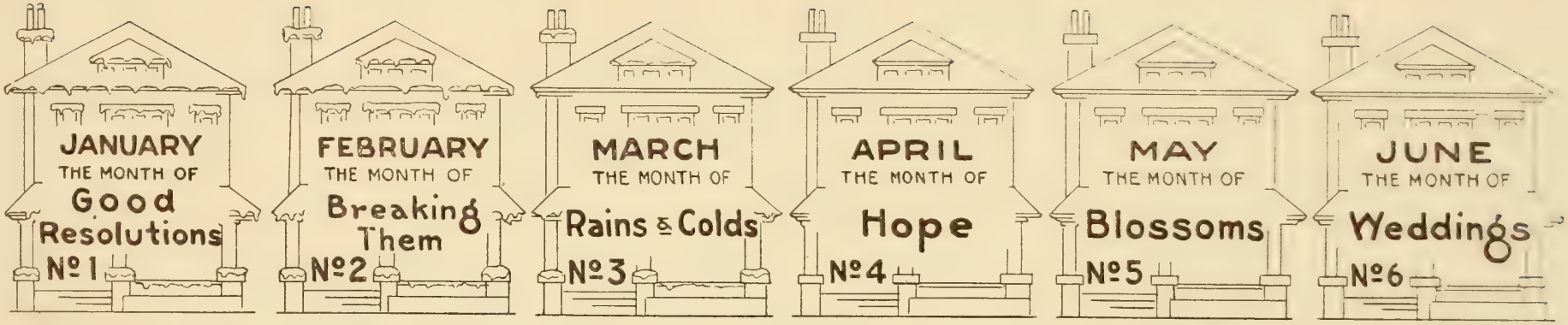
MILLS AT MILLE ROCHES, THOROLD,
GEORGETOWN AND PORT ARTHUR, ONTARIO

Largest Manufacturers
in
Canada
of
Superior Catalogue Papers



PRINTING RESULTS UNSURPASSED

HEAD OFFICE : : : : 50 UNIVERSITY AVE.
TORONTO, CANADA



LOOK AHEAD UP TWELVE MONTH STREET

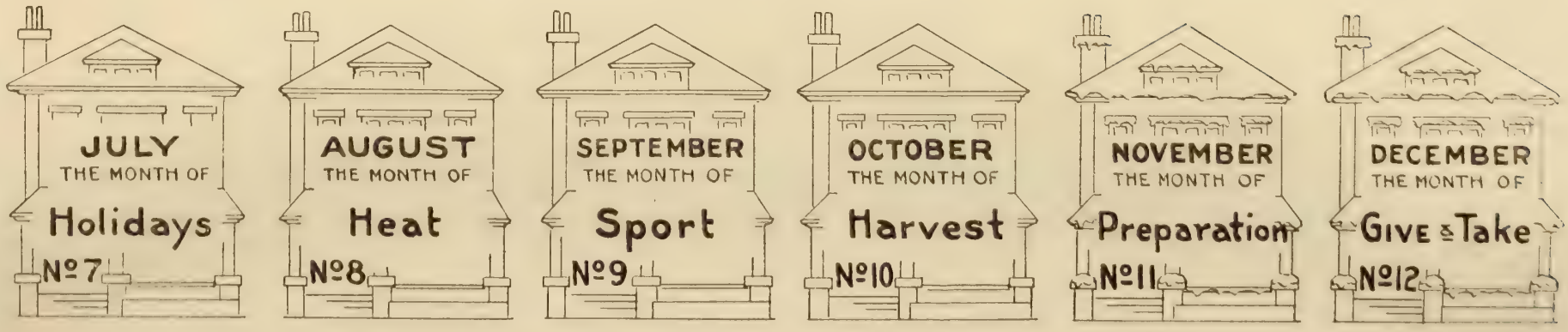
JULY—No. 7—HOT! Why worry about the Future? All the same, a lot of the big business done in No. 12 depends upon what is being done now and in Nos. 8 and 9.

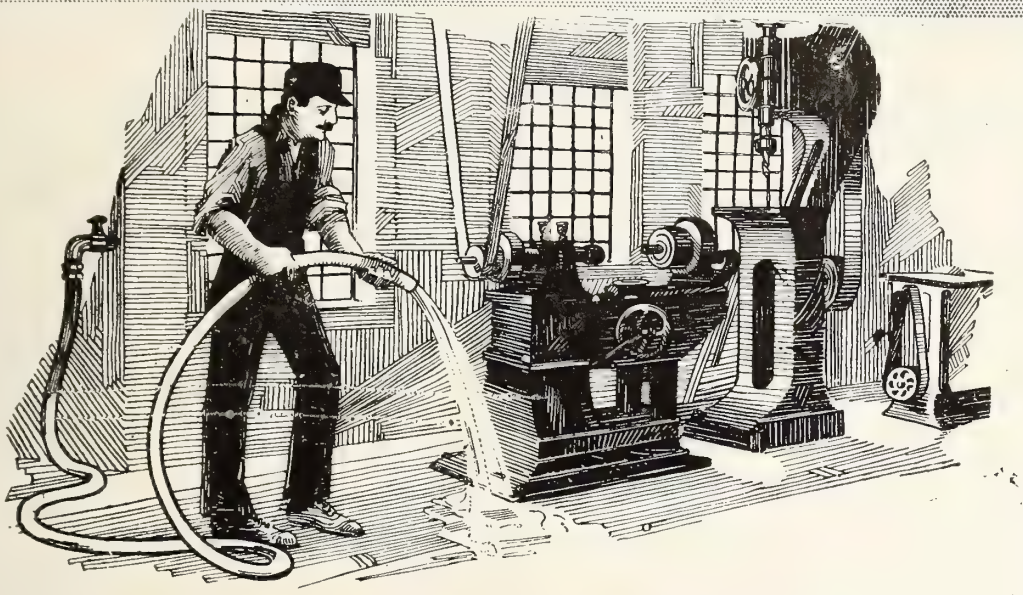
SATURDAY NIGHT presses, by night and by day, are turning out the ammunition to bring down the big game later.

What are we doing for YOU? Call Main 6640 and let's have a chat about it. It's up to you! Put it up to us!

Be Ready! Call Main 6640.

SATURDAY NIGHT PRESS
Cor. Richmond and Sheppard Streets, Toronto





Tradition was Disregarded When Goodyear Built Hose

THE beaten path of established customs has rarely been followed by Goodyear scientists.

Rapidly-changing industrial conditions demanded new and more efficient methods.

Breaking away from preconceived ideas of tire-building created the Goodyear Cord Tire—the finest tire in the world.

Applying the same analytical methods to industry, Goodyear redesigned Industrial Hose—scientifically developed it to meet the needs of present-day industry.

Take Goodyear Water Hose as an example.

Water Hose is rarely destroyed through high pressure. But every year thousands of feet is prematurely worn out because the *outside covering* is not sufficient to stand the constant scuffing and pulling over cinders, pieces of iron—against the edges of machines—and so on.

To overcome this, Goodyear Water Hose is built with an extra thick covering of exceptionally tough rubber. A cover which gives greater protection, *longer wear*—lowers costs. And a good inner tube and strong fabric are in keeping with its superior covering.

There is a particular Goodyear hose scientifically designed—as in the case of Goodyear Water Hose—for every Industrial use.

A man trained by Goodyear will be sent to study *your* hose problems—without obligation. Phone, wire, or write the nearest branch.

The Goodyear Tire & Rubber Co. of Canada, Limited

Branches—Halifax, St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver.





GOODYEAR
MADE IN CANADA
INDUSTRIAL HOSE

World-Wide Demand for Goodyear's Quality of Belting and Hose Makes Advisable Some Changes in Brand Names

Example—GOODYEAR { *formerly*—"Extra Power" / *now* —"Klingtite"

THE most widely known belting in Canada to-day is "Extra Power."

Now you will buy this same belting as Goodyear Klingtite belting—"Klingtite"—a name adaptable to world-wide use.

In our Sales messages you will read of Goodyear Klingtite instead of Goodyear Extra Power.

Our Belting men will talk to you of Goodyear Klingtite instead of "Extra Power."

The familiar brand names of Goodyear belting, hose and packing have been changed so that each of these products may be called by the same name in Australia, Europe, South Africa, India, Japan, China and other countries, as in Canada.

The new brand names are such that they can be used and understood in practically every language and country without change.

Some of the former names designed and reserved for Canadian use do not lend themselves to the complication of languages and conditions prevailing in some of these foreign countries.

Goodyear Belting, Hose and Packing, made in Canada, have become products of world-wide sales.

You will welcome the development of this phase of our business because it means the building up in Canada of another world-wide manufactory. It means increased demand and prosperity for Canadian workers. It means economy and service for you.

Particularly to you, it means that efficient engineers and factory superintendents the world over endorse your choice when you secure belting, hose and packing for your plant.

Phone, wire or write the nearest Goodyear branch for a man trained by Goodyear in belting, hose and packing problems to call on you. No obligation.

The Goodyear Tire & Rubber Company of Canada, Limited

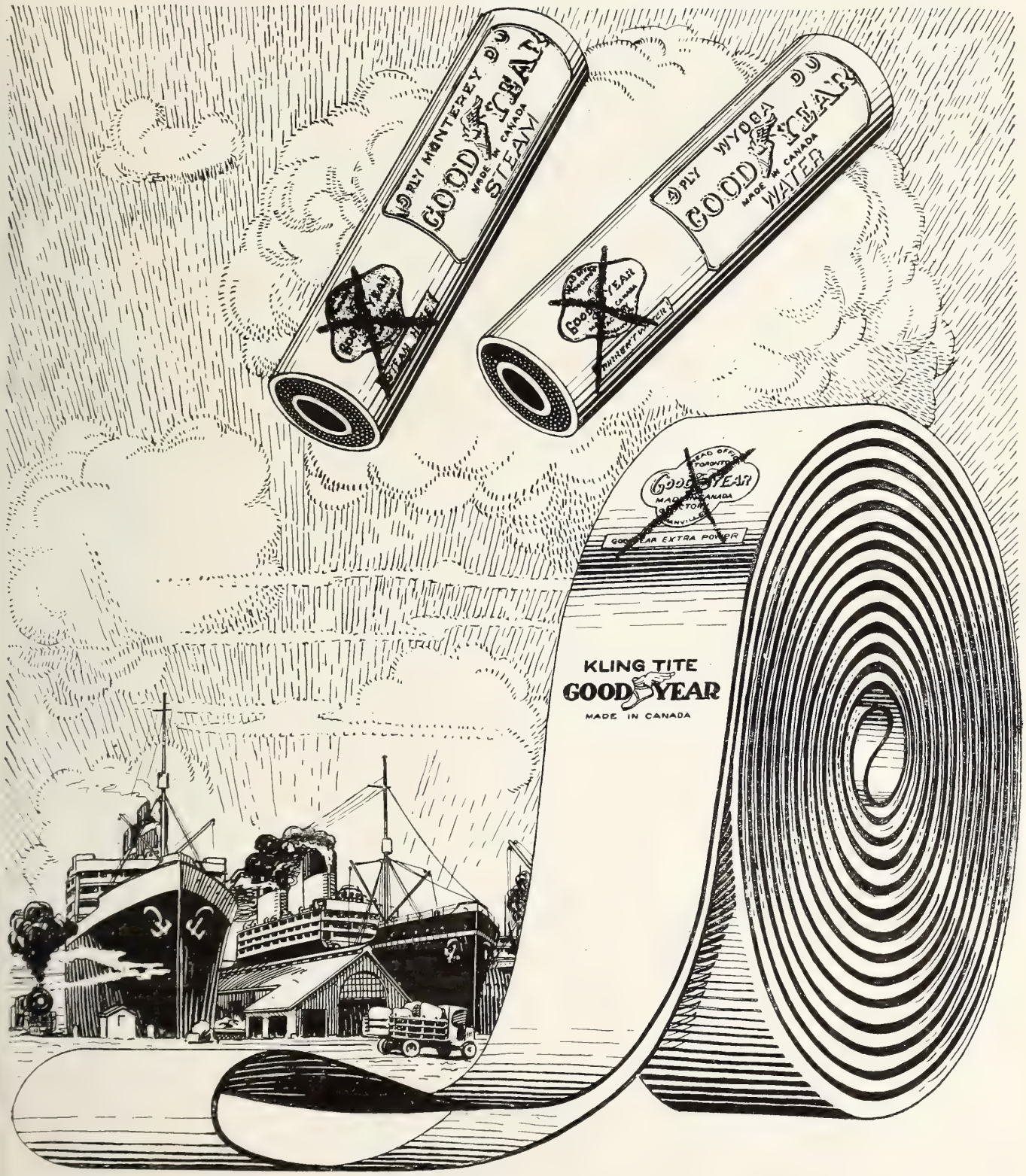
Branches:—Halifax, St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, Regina, Saskatoon, Calgary, Edmonton and Vancouver.
Service stocks in smaller cities.

Only the Name is Changed

GOODYEAR
MADE IN CANADA

KLINGTITE BELT

(The New Name of Extra Power Belt)



Only the Name is Changed

GOODYEAR

MADE IN CANADA

KLINGTITE BELT

(The New Name of Extra Power Belt)



The Salt Plant Windsor, Ont.

Windsor Brand

Windsor Brand Chemicals, manufactured in the only complete and up-to-date chemical plant in Canada, have reached a high state of perfection, and always give satisfaction. Order Windsor Brand when you need

CHLORIDE OF LIME
BLEACHING POWDER
CAUSTIC SODA

The Canadian Salt Company products have no equal for quality, purity and strength. They have won public confidence, and bring steady custom. Stock up with

Windsor Table Salt
(For general household use)

Regal Table Salt
(Free running—in cartons)

Windsor Dairy Salt

Windsor Cheese Salt

Made in Canada by
THE CANADIAN SALT CO., LIMITED
Windsor, Ontario



Chemical Plant Sandwich Ont.



A Fair Trial

is all we request of users of Grinding Wheels to prove that

Dominion Wheels

are equal in quality to the Best Imported Abrasive Wheels

Canadians have begun to realize the importance of buying products at home. The value of the Canadian Dollar abroad depends upon it. If you are a user of Grinding Wheels you should follow Canadian-made Grinding Wheels exclusively. You may be doubtful of the quality from experience—but have you tried DOMINION Wheels? Dominion Wheels are proving by actual test that they are equal to any foreign-made wheel on the market.

We don't want to sell you Dominion Wheels merely because they are made in Canada. All we request you to do is to buy them on a **Quality** basis. Test them against the wheels you are now using.

The **quality** that has made Dominion Wheels distinctive from other wheels is the result of manufacturing our own raw abrasive material. The **quality** is standardized. It can be depended upon in every Dominion Wheel made.

DOMINION ABRASIVE WHEEL CO., Limited
MIMICO, ONTARIO

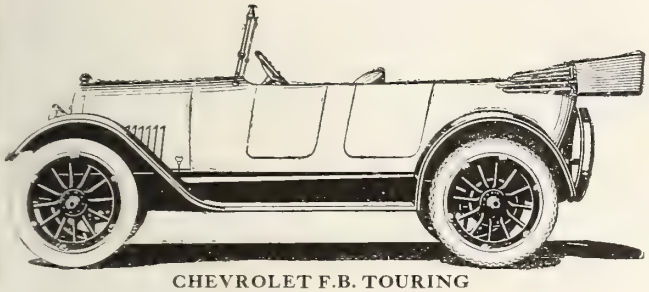
Made in Canada In Every Particular



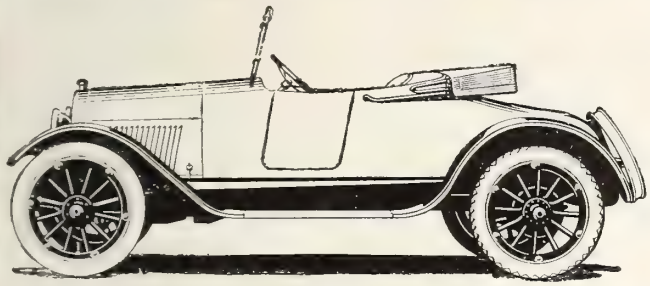
Equal in Quality to Best Imported Wheels

CHEVROLET

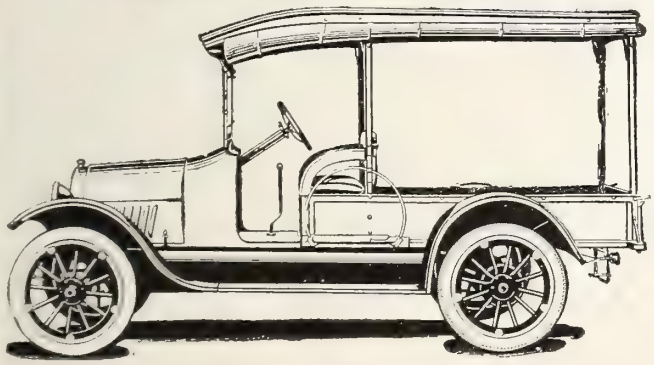
Motor Cars and Light Delivery



CHEVROLET F.B. TOURING



CHEVROLET MODEL F.B. ROADSTER



CHEVROLET LIGHT DELIVERY

Only quantity production in our Canadian factories enables us to sell Chevrolet Cars and Light Delivery Trucks at such moderate prices.

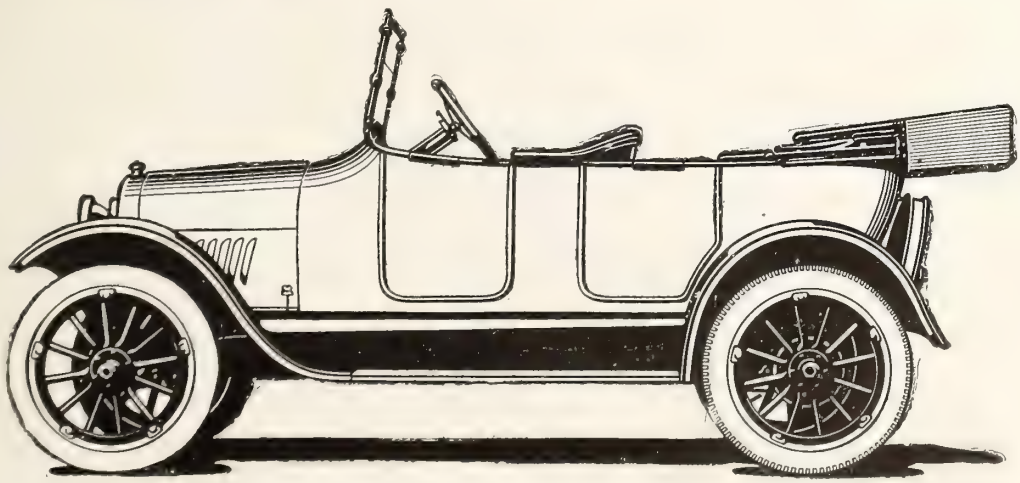
With the opening of a new General Motor's unit in Walkerville, almost every part in the make up of Chevrolet Cars is manufactured in Canada.

When you buy a Chevrolet product you buy Canadian made goods and help to build up Canadian Industry.

Send for literature

Chevrolet Motor Co.
of Canada, Limited

OSHAWA, ONT. WINNIPEG, MAN.



CHEVROLET 490 TOURING



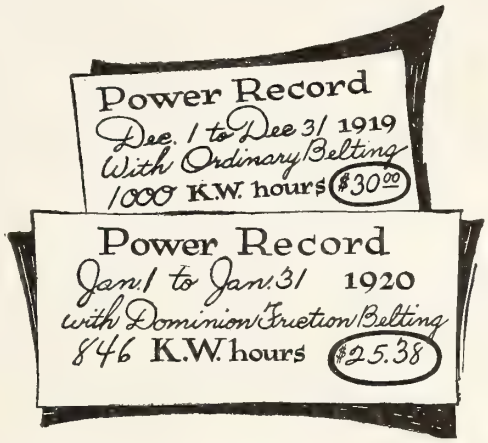
633-661 EASTERN AVE. ESTABLISHED 1852

THE above illustration will give you an idea of the enormous daily output of the famous Clarke's Patent Leather. In the upper left hand corner can be seen a large addition to our enamelling department. Therefore the boast:

The Largest Patent Leather Manufacturers in the British Empire

A. R. CLARKE & COMPANY
Limited

MONTREAL TORONTO QUEBEC



Decrease Your Operating Cost

Efficient transmission equipment is an important factor in keeping down operating costs. Each repair you have to make to your belting equipment means delays and idle employees—the total cost of which is often greater than you would pay for better belting.

Dominion Friction Surface Belting

is built for "service first." Through its long life and continuous performance it practically eliminates the necessity for repairs and replacements. It eliminates delays and needless waste of time.

At your convenience, our belting experts will be glad to analyze your transmission equipment and prove to you that you can put in the profit column most of the losses created through transmission troubles.

All you need to do is 'phone, wire or write our nearest service branch.

CANADIAN CONSOLIDATED RUBBER CO. LIMITED
DOMINION RUBBER SYSTEM AND ASSOCIATED COMPANIES

Our Dominion Hose, Packing and Industrial Rubber Goods are all the Same High Standard as Dominion Friction Surface Belting

Dominion Rubber System Service Branches

Halifax	London	Saskatoon
St. John	Kitchener	Edmonton
Quebec	North Bay	Calgary
Montreal	Fort William	Lethbridge
Ottawa	Winnipeg	Vancouver
Toronto	Brandon	Victoria
Hamilton	Regina	

91

MINER'S INVINCIBLE

The Miner Rubber Company, Limited

MINER'S GREYHOUND

Manufacturers of

RUBBER FOOTWEAR

MINER RUBBERS

WATERPROOF GARMENTS

and

RUBBERIZERS OF FABRICS

Factories, Granby, Que.

Branches and Agencies at

Montreal, Quebec, Toronto, St. John, Sydney, Charlottetown, Trenton, Ont., Hamilton, London, Winnipeg Regina, Edmonton, Vancouver, B.C.

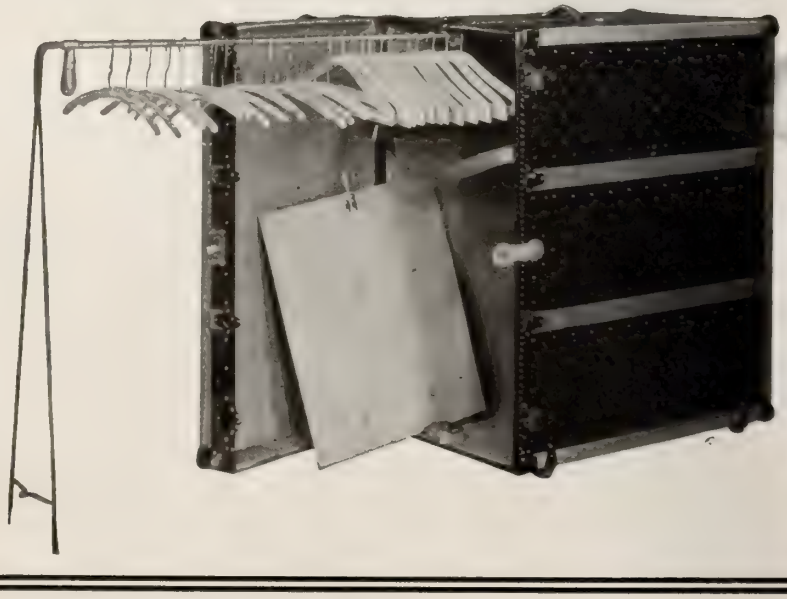
SHOW YOUR SAMPLES UNWRINKLED

WARDROBE TRUNKS

for Suits, Coats, Dresses and Waists

WE MAKE
SAMPLE TRUNKS
AND CASES
FOR EVERY
BUSINESS

Let us know your needs and get our prices.



The M. Langmuir Mfg. Co. of Toronto
Limited



Dunlop Belting is Serving Faithfully in All Kinds of Industries

It is a matter of record that wherever the "Two Hands" products go they serve faithfully and well. In industries which are particularly trying on Belting

DUNLOP "Gibraltar RedSpecial" Transmission Belting

is giving a higher percentage of satisfactory service than any other type. We have the facts to prove this statement.

DUNLOP Conveyor and Elevator Belts

are also prominently employed in all flourishing industries. We have a staff who specialize on Belt problems. You are welcome to their experience.

Also Makers of High-Grade Hose and Packing

DUNLOP TIRE & RUBBER GOODS CO., Limited

Head Office and Factories: Toronto
Branches in the Leading Cities

D42

CANADIAN CARBONATE LIMITED

HALIFAX, QUEBEC CITY, MONTREAL, TORONTO
HAMILTON, WINNIPEG, CALGARY, VANCOUVER

Manufacturers of

"CROWN BRAND" LIQUID CARBONIC ACID GAS

HEAVY CHEMICALS AND DYESTUFFS

The Grasselli Chemical Co.
LIMITED

Manufacturing Chemists

Toronto, Ontario

Branch Office: MONTREAL, QUE. Works: HAMILTON, ONT.

"Tuff Stuff"



300 Foot Conveyor Belt

"Efficiency" Brand

This is not a very big belt, in fact we have another ready for delivery, over 1,100 feet long. "Efficiency" Brand Conveyor Belts have achieved the ideal in construction for

Strength ***Durability***
Adaptability ***Easy Troughing***

In "Efficiency" Conveyor Belting there is an extra thickness built in where the idlers contact, insuring longer wear to the belts.
If you have Conveyor Belt or Transmission Belt problems, let our expert endeavor to assist you. Your communication will be always welcome and will receive our prompt attention.

Gutta Percha & Rubber, Limited

Manufacturers of High Grade Mechanical Rubber Goods

Head Offices and Factory - - TORONTO

DOMINION GLASS COMPANY LIMITED

HIGHEST QUALITY TANK GLASS PRODUCTIONS

FLINT
DARK GREEN
AMBER

Bottles, Jars, Packers' Ware
Tumblers, Chimneys, Globes

BLUE
LIGHT GREEN
OPAL

Our Productive Ability can be Gauged by the Numerous Colors at the Disposal of Patrons

OWENS MACHINE WARE WITH PATENT CLOSURES A SPECIALTY

HEAD OFFICE—MONTREAL EXPORT OFFICE—MONTREAL

SALES OFFICES—WINNIPEG, VANCOUVER

FACTORIES

MONTREAL TORONTO HAMILTON WALLACEBURG REDCLIFF

Interprovincial Pressed Brick



F. H. MILLER RESIDENCE
Lauder Avenue, Toronto



CANADIAN BANK OF COMMERCE
Vaughan Road and St. Clair Ave., Toronto V. D. Horsburg, Architect

Red, Buff and Fire Flashed Colors

Colored Folder sent on request

Interprovincial Brick Co. of Canada Limited

Head Office: 30 Toronto St., Toronto Plant: Cheltenham, Ont.



WILLYS-KNIGHT

DIFFERENT from other types, the Willys-Knight sleeve-valve motor runs *better* the *more* you use it.

This engine is always ready whenever you are.

It *improves with use;* stays quiet and it rarely requires adjustment.

In refinement of detail, the coach work is in keeping with the wonderful efficiency of the motor.

WILLYS-KNIGHT
BOOKLET ON REQUEST

WILLYS-OVERLAND LIMITED

Sedans, Coupes, Touring Cars and Roadsters

Head Office and Factories, Toronto, Canada

Branches: Toronto, Montreal, Winnipeg and Regina

Willys Knight

DOMINION BRIDGE CO., LIMITED

MONTREAL, P.Q.

Engineers, Manufacturers and Erectors of

Paper Making Machinery

Steel Structures

Railway and Highway Bridges

Electric and Hand Power Travelling Cranes



Penstocks

Tank and Plate Work

Marine Engines and Boilers

Coal and Ore Handling Machinery

Lift Locks and Gates

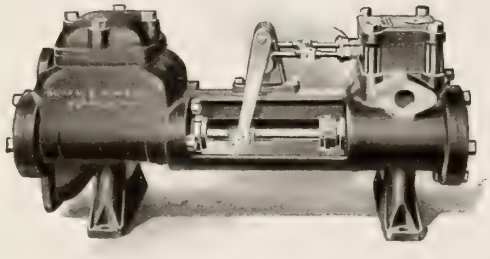
Head Office and Works: LACHINE, P.Q., CANADA P.O. Address: MONTREAL, P.Q

Cable Address: DOMINION Branch Office and Works: TORONTO, OTTAWA, WINNIPEG

Sales Offices: MONTREAL, TORONTO, OTTAWA, WINNIPEG, EDMONTON, REGINA, VANCOUVER

LARGE STOCK OF STRUCTURAL MATERIAL AT ALL PLANTS

Piston Packed Steam Pumps



Small Piston Packed Duplex Steam Pump

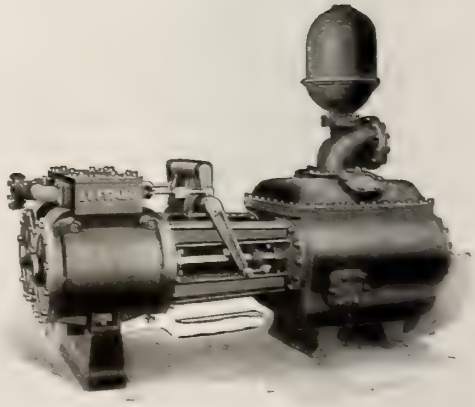
Buffalo Duplex Piston Packed Steam Pumps

For Boiler Feed or General Service, for pressure up to 150 lbs., will handle thick or thin, hot or cold liquids.

All sizes have brass liners in the water cylinders, brass valve seats, and brass valves.

They maintain their full stroke at all piston speeds.

Standard sizes carried in stock.



Large Piston Packed Duplex Steam Pump

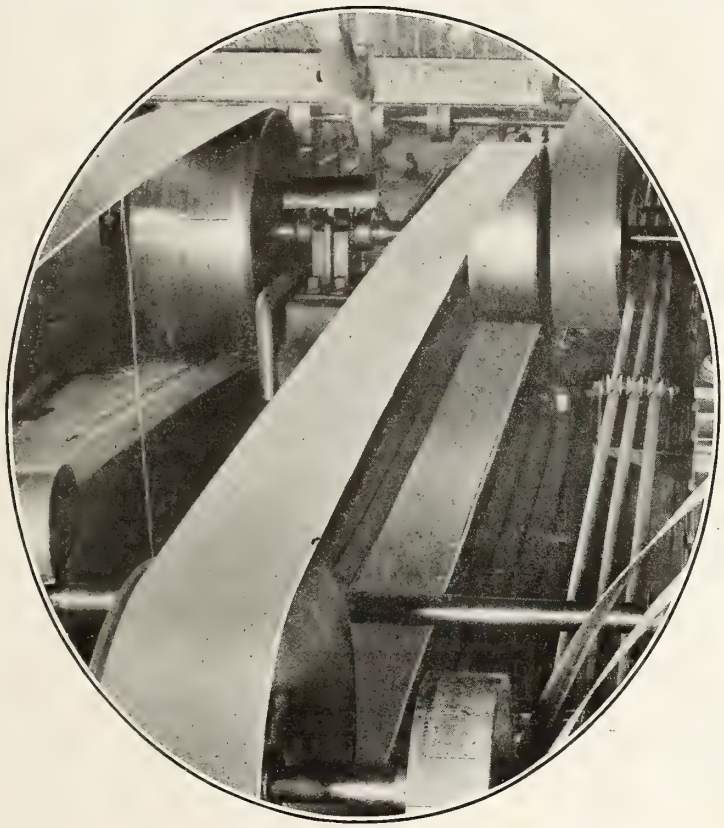
The Canadian Blower & Forge Co. Ltd.

Kitchener, Ont.

Manufacturers of Steam Power and Centrifugal Pumps and Condensers

38 YEARS SERVICE

Would You Ask for Anything Better?



Here is a letter that requires no explanation. It is just another instance of long service and good conduct of a Leather Belt. Service like this is built into every belt that leaves our factory.

THE TRENT VALLEY WOOLLEN MFG. CO., LIMITED

Messrs. Sadler & Haworth,
Montreal, Que.

Campbellford, Ont., Feby. 11th, 1920

Dear Sirs,

In reply to your letter of recent date, regarding the two double 12 inch belts, made by your firm, would say that it affords me pleasure to enclose herewith photos of the same marked (X).

These belts have been in constant use, in the Trent Valley Woollen Mfg. Co's mill here, since February, 1882. They are still running, in good condition and give promise of standing up a few years longer.

Having had charge of these belts myself, I may say that it is with considerable pride I point to them as undoubtedly the best thing in the line of belting that we have had.

I have often thought of writing to express the satisfaction we have had with your goods, and may say that the only thing we use is a little castor oil on the face occasionally.

With best wishes, I am, yours respectfully,

(Signed) W. H. ASHTON.

We Could Do the Same for You if Given the Chance

Sadler & Haworth

Tanners and Manufacturers of Leather Belting for 44 Years

MONTREAL, Que.—511 William St. TORONTO, ONT.—38 Wellington St. East WINNIPEG, MAN.—Princess St. and Bannantyne Ave.
ST. JOHN, N.B.—149 Prince William St. VANCOUVER, B.C.—560 Beatty St.

THE EXPORT ASSOCIATION OF CANADA LIMITED

Capital $1,000,000.00

HEAD OFFICE

MONTREAL --- 263 St. James Street

Toronto Branch---18 Wellington Street East

OFFICES AND REPRESENTATIVES ABROAD

ENGLAND	20 Great Pulteney Street	LONDON
	K21 Exchange Buildings	LIVERPOOL
IRELAND	60 Donegal Street	BELFAST
FRANCE	20 rue de Paradis	PARIS
DENMARK	18 Lille Strandstraede	COPENHAGEN
SWEDEN	Jakobsgatan 24	STOCKHOLM
NEW ZEALAND	N.Z. Ins. Bldg., Queen St.	AUCKLAND
	Exchange Building	DUNEDIN
	Banks Building	WELLINGTON
AUSTRALIA	122 Flinders Street	MELBOURNE
SOUTH AFRICA	D.R. Church Chambers	CAPE TOWN
BRITISH WEST AFRICA		LAGOS
		ACCRA
TRINIDAD, B.W.I.		PORT OF SPAIN
CUBA	Aguiar No. 71	HAVANA

SUCCESS lies not only in what a manufacturer makes for home consumption, but what he can, in addition, EXPORT.

MANUFACTURERS AND PRODUCERS desirous of finding markets abroad for their product should communicate with The Export Association of Canada Limited, who have selling organizations in the above mentioned countries and have correspondents in OTHER PARTS OF THE WORLD.

The Financing of Shipments, and all matters appertaining to Shipping, Insurance and Forwarding, come within the scope of our services.

WRITE FOR FURTHER INFORMATION TO:

THE EXPORT ASSOCIATION OF CANADA LIMITED
MONTREAL

Cable Address
"Exacan" Montreal



ROUS & MANN
LIMITED
DESIGNERS AND PRINTERS

PRODUCERS OF
Direct Mail Advertising — Booklets, Folders, Calendars, Labels, Window Display Cards, Cut-Outs, Hangers, Window Trims, Circulars, Blotters, Box Wraps, Etc., Etc.

ROUS & MANN, LIMITED. 172 SIMCOE ST. TORONTO.



Sensible and Economical Buying of Printed Advertising

MOST direct-by-mail advertising is bought piecemeal, and though the individual pieces may be excellent, it is an expensive method of purchase, and does not give the greatest value in results. An appropriation should be made to cover a season or a year, as the case may be, and your direct-by-mail booklets, folders, window and store display material bought from one firm as a complete plan, and not as a number of units, which cost more and cannot give the same cumulative value in returns.

It is not impossible to figure out your requirements for a given time, and this we would be glad to talk over with you.

The advantages of buying a complete plan at one time are obvious. A saving can be effected in the designing, the engravings and in the cost of production. A consistent color scheme can be carried throughout and colors can be matched more easily and quickly. The deliveries made on time, allow for your advertising to reach the buyer at the most effective moment.

We have given a lot of thought to the planning and handling of printed advertising in this way, and would be glad to have some one see you, on request, to talk over your advertising for the Fall and Winter of 1920-21.

ROUS & MANN
LIMITED

Designers and Printers

172 SIMCOE STREET - TORONTO, CANADA

R&M


Quality
THE
STEEL COMPANY
OF
CANADA
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PRESS ROLLS OR SPECIAL FELT ROLLS
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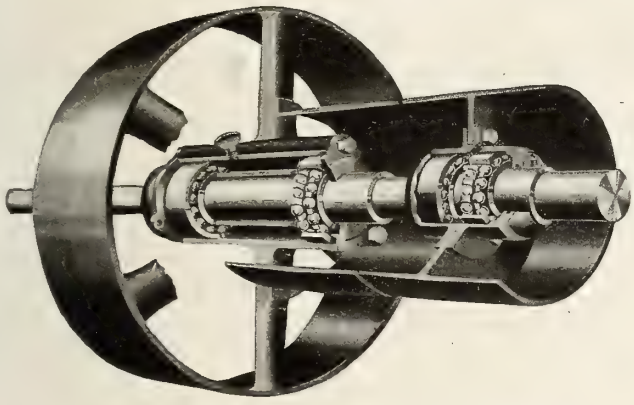
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All Ball Bearing Counter Shaft Drive For the Best Service

MADE IN ANY COMBINATION OF PULLEY SIZES FOR

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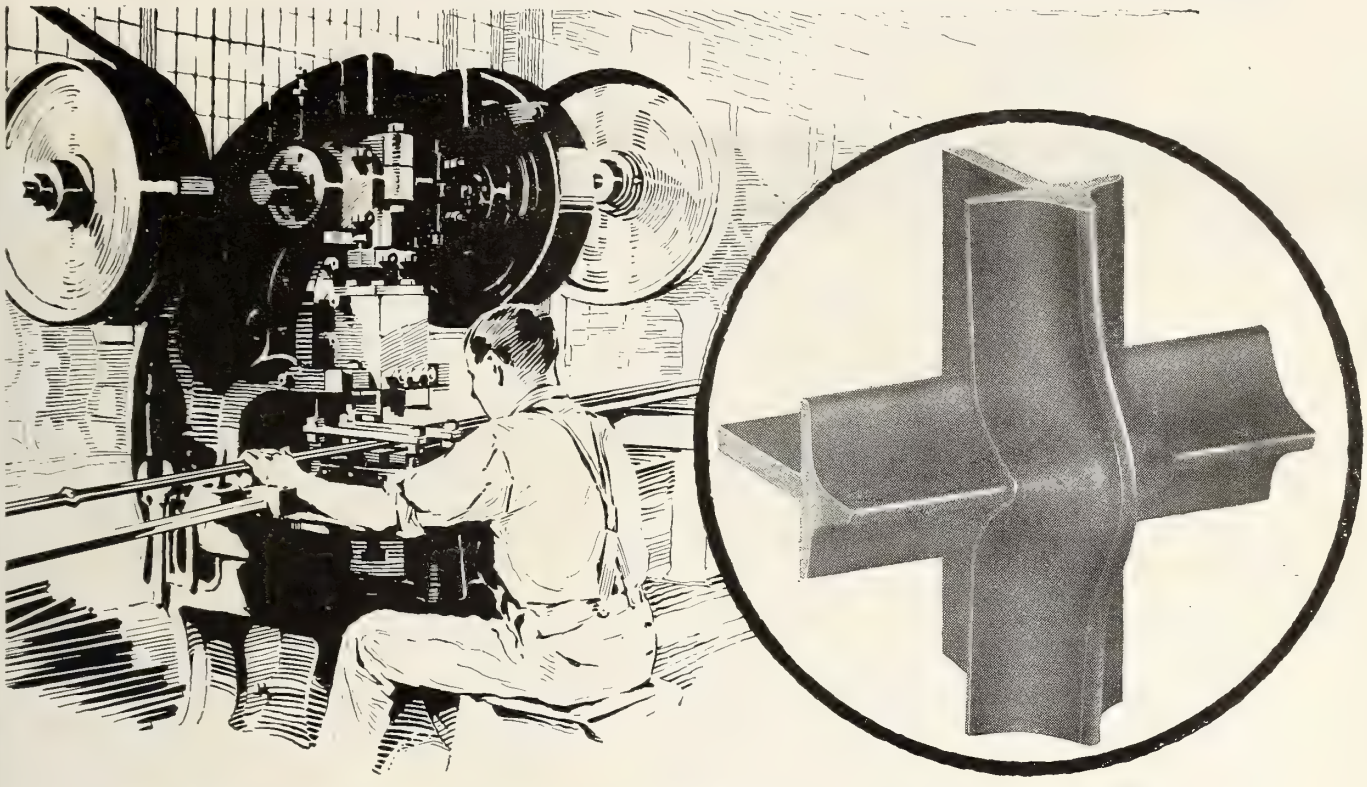
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Here's How the Fenestra Joint is Made—



Figure 1



Figure 2



Figure 3



Figure 4

FENESTRA STEEL SASH is noted for its strength and rigidity. The Patented Interlocking Joint is the distinguishing feature of Fenestra Steel Sash. It is the strongest and most satisfactory method of steel sash joining. This is because there is a retention of 30% more metal than in any other method of joining, and both horizontal and vertical bars run continuously.

To illustrate—Figure 1 is the horizontal muntin bar, notched to receive the locking wing. The vertical bar, which is the same shape as the horizontal, is die punched to receive the horizontal one. All except 20% of the metal is retained. This is a decided improvement over the mitered joint which necessitates cutting away 50% of the metal from each bar. The inner surface at the head has the same contour as the horizontal bar, giving an absolute tight, rigid and weatherproof union.

Figure 3 shows both bars assembled, ready to close the locking wing. Figure 4—The locking wing closed.

Perfect rigidity at the joint makes Fenestra Steel Sash withstand greater wind pressure, wind suction and vibration.

Canadian Metal Window & Steel Products, Ltd.

160 River Street, Toronto, Canada

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In the Oil Room

Safety from fire—safety from loss of oil and time—means using

BOWSER Oil Storage Equipment

Bowser Equipment is practically fire-proof. Handling of oils is done mechanically, with a wonderful saving of floor space, time and oils. It keeps all the oils clean and fit for use. Enables keeping of accurate records. *We have some interesting literature. It's yours for the asking, Write for it today.*

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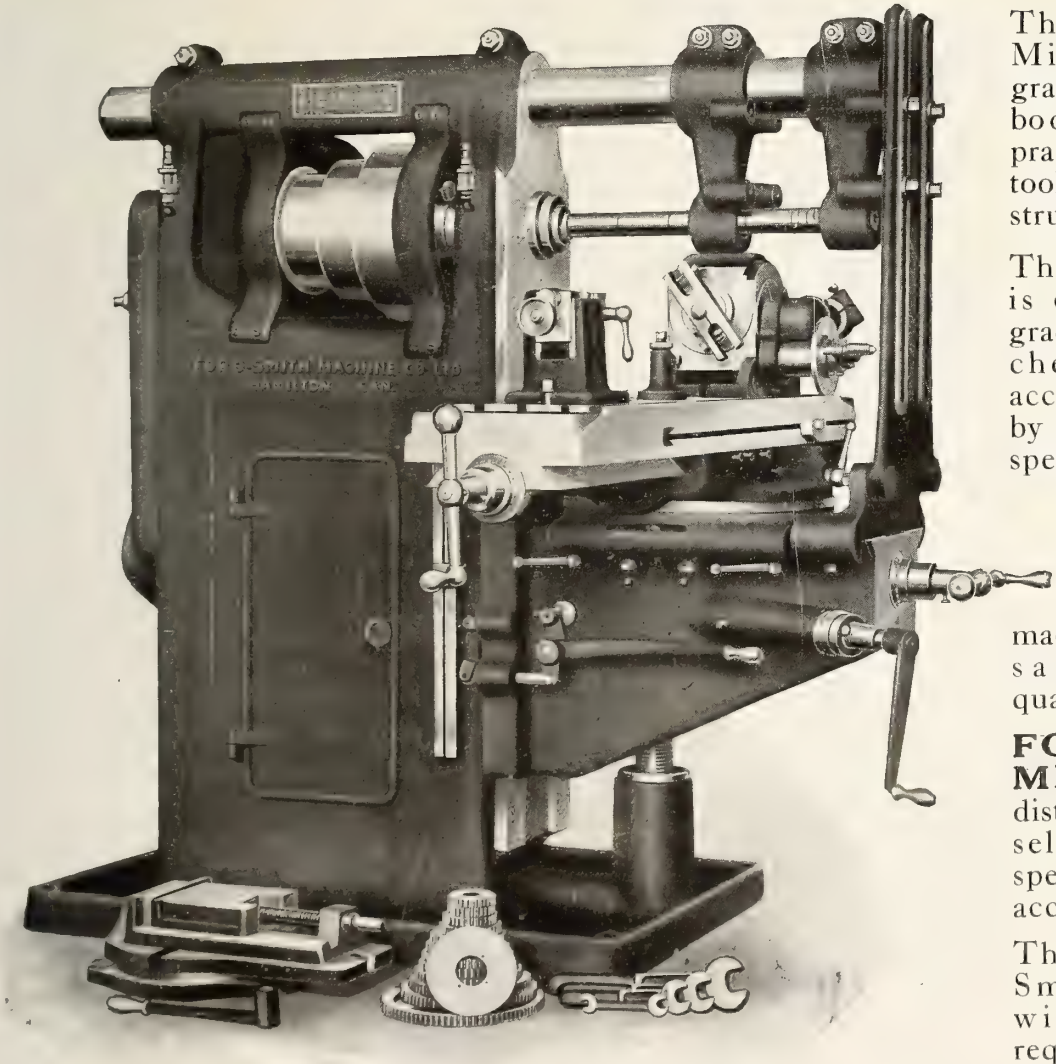
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Machine Tools of Quality, Canadian Made

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The Ford-Smith Miller is a high-grade machine embodying the best practice in machine tool design and construction.

The workmanship is of the highest grade and is rigidly checked for both accuracy and finish by an elaborate inspection system.

The Dividing Head and the other attachments for this machine are of the same superior quality.

FORD-SMITH MILLERS have distinguished themselves for power, speed and unfailing accuracy.

The latest Ford-Smith Catalogue will be sent on request.

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Copper Products Limited

Manufacturers of

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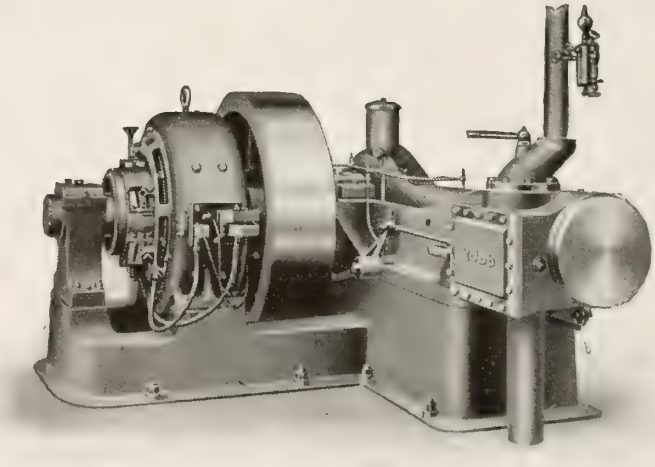
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Corliss, slide valve, vertical, horizontal, simple and compound.

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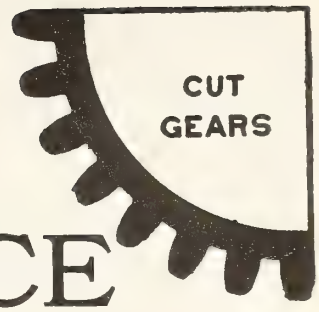
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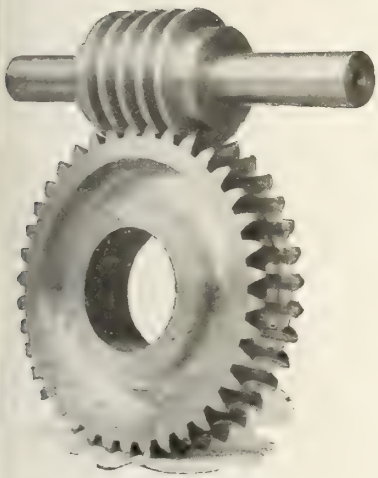
Robb Engineering Works, Limited, Amherst, N.S.

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Phone Westmount 6800

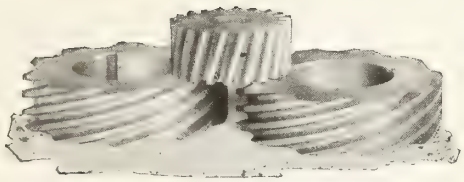
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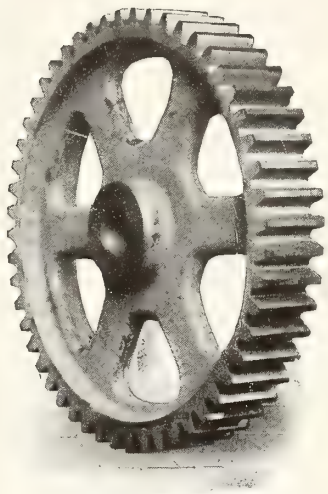




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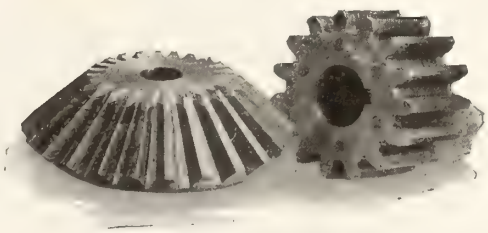
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Spur Gear up to ..... 91 inch Diam.
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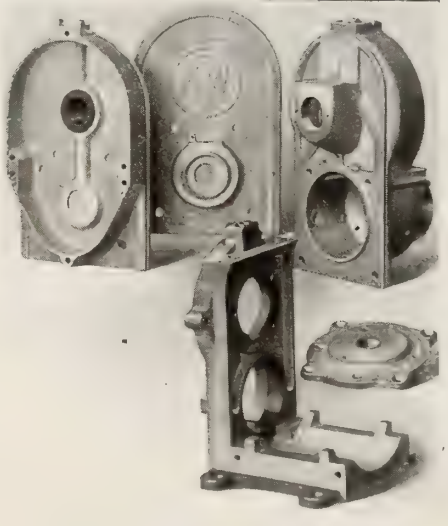
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DIE CASTINGS

DIE CASTINGS



DOEHLER QUALITY

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MAGNETO FRAMES

We have purchased the Canadian right for the Doehler process of Die Castings and are now producing these castings in our factory in Hamilton
Do not overlook the advantages gained by using Die Castings

Send us your blue prints or samples for quotations



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LEVER BROTHERS LIMITED manufacture Glycerine for various industrial purposes, including Dynamite Glycerine, Pharmaceutical Glycerine and Industrial Glycerine. We cater especially to

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We Carry a large stock of assorted sizes and cut up to sizes required

Prompt shipment from stock

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The All Steel Elevated Water Tank is the most economical installation for Automatic Sprinkler systems for fire protection, general mill supply, or Municipal Water Works systems.

Its first cost is not excessive, the maintenance expense is very low, and there is no danger of leakage, falling ice, or possibility of the tank bursting or catching fire.

Hundreds of our All Steel Elevated Water Tanks now in service throughout Canada bear witness to these facts.



OUR PRODUCT IS MADE IN CANADA

Write us for plans, specifications and estimates. Our Catalogue No. 08 mailed on request.

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FIRE!

You can't foresee a fire, but you can forestall it with a

Northern Electric

Gamewell Factory Fire Alarm System

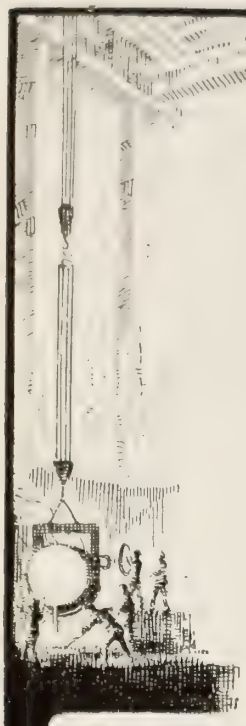
THIS System has an Alarm Box in every department of your plant. At the first sign of fire, an employee pulls the nearest box. Instantaneously every man and woman is warned—automatically the nearest city box trips, summoning the City Fire Brigade quicker than any other method.

Be prepared to meet fire that can ruin your business—cause loss of life which no insurance money can repay.

It is to-day's decision which prevents to-morrow's holocaust. Further information and prices gladly furnished by our nearest house.

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Utilization of By-Products and Wastes

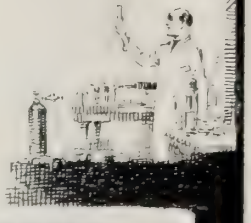
In the packing plant no by-product is lost.

The same cannot be said of all manufacturing establishments.

In ***your*** factory there are by-products—known or unrecognized. Perhaps you get the most out of them. Maybe not.

Let us investigate for you. Our trained staff will study and experiment with your wastes. They will find a commercial use for your scrap and salvage present refuse.

Your increased profit from this unexpected source may well be a revelation to you, as it has been to numerous of our clients in the past.



MILTON HERSEY COMPANY, LIMITED

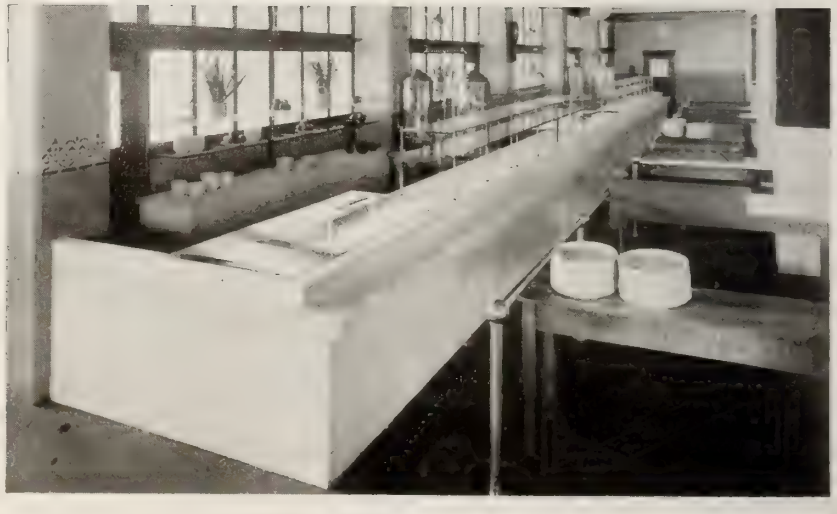
Industrial Chemists, Engineers and Inspectors

MONTREAL AND WINNIPEG

Improved Factory Conditions Demand Clean Sanitary Lunch Rooms

The cafeteria has proved to be the most popular and efficient form of factory lunch room installation.

We have made a specialty of equipping cafeterias for Industrial concerns and the illustration shows one of our many successful installations.



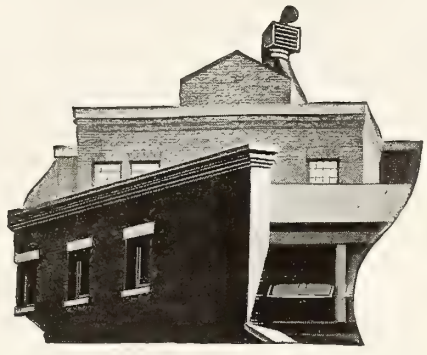
Cafeteria at Massey-Harris Co., Ltd

Our designing Department will gladly submit you a complete plan with estimate of cost of cafeteria equipment to meet your special requirements.

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Office, Factory and Showroom - - - - - 154 George Street, Toronto

Fresh Air for Your Employees Dividends for You



Do you realize that to keep your employees fresh and in good shape, so that you can expect and ensure yourself the maximum output of which your shop is capable, you must give them fresh, clean air? You can only do this by drawing out the stale air, and replacing it with fresh, vitalized air.

The Ormsby-Swartwout Ventilators do this for you. It means that at five o'clock in the afternoon your employees are just as fresh as in the morning. Your output is increased, your employees healthier, happier and more contented.



Patented April 15, 1913 May 28, 1913 Other Patents Pending



Try two or three 18" Ventilators in one part of your works and see the real results they will give you. We know that you will be placing them on the balance of your plant as soon as you have given them a try-out.

Write for this Free Booklet on Ventilation

It tells how other firms get "through" ventilation. It shows how to mount ventilators and gives complete information to anyone who believes in the added efficiency that good ventilation brings. Write for a copy to-day.

The A. B. Ormsby Company, Limited.

Toronto

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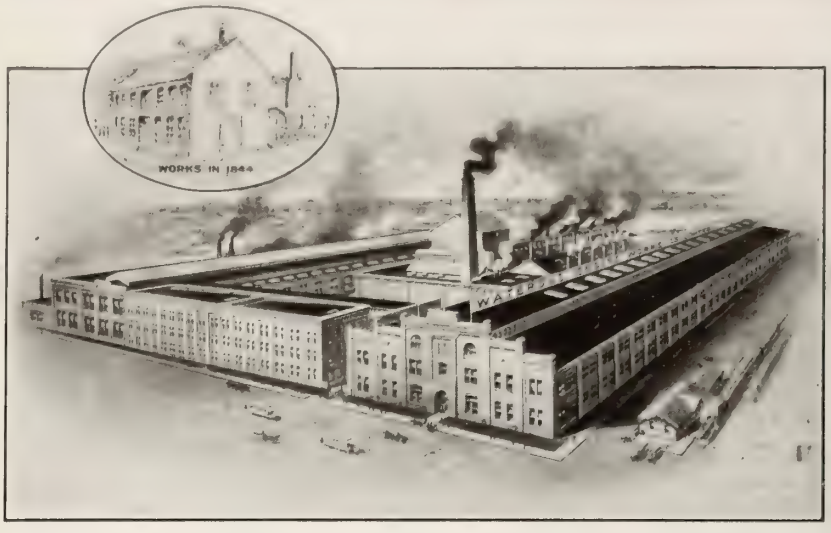
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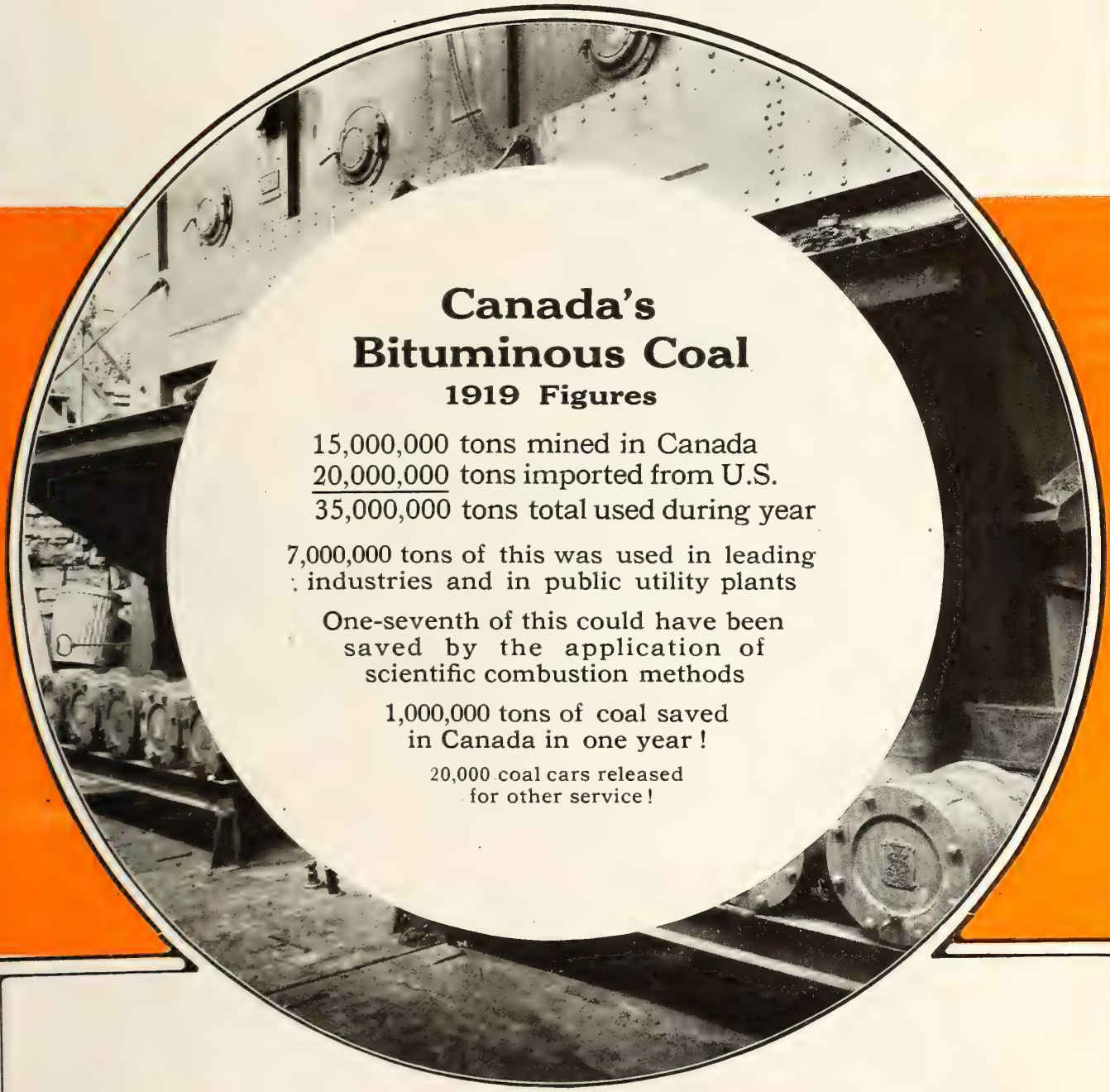
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AND
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SPECIAL PLATE WORK: Steel Retorts, Pressure Tanks, Steel Reservoirs, Storage Bins, Air Tanks, Washing Tanks, Gas Tanks, Settling Tanks.

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What's Your Share of Canada's Excessive Coal Bill?



Canada's Bituminous Coal

1919 Figures

15,000,000 tons mined in Canada
20,000,000 tons imported from U.S.
35,000,000 tons total used during year

7,000,000 tons of this was used in leading industries and in public utility plants

One-seventh of this could have been saved by the application of scientific combustion methods

1,000,000 tons of coal saved in Canada in one year!

20,000 coal cars released for other service!

Your Duty to Canada is Your Duty to Yourself

SAVE COAL

J. J. STOKER JONES



The Jones Stoker
in Operation

The JONES

THE JONES UNDER-FEED STOKER COMPANY, LIMITED, has been re-organized, and its name changed to The Under-Feed Stoker Company of Canada, Limited. The following are the officers and directors of the Company:---

President: Lloyd Harris, late Chairman of the Canadian Trade Mission, London, England; President Russell Motor Car Ltd.; President The Under-Feed Stoker Company of America, etc.

Vice-President and Managing Director: S. A. Armstrong, Vice-President and Managing Director of The Under-Feed Stoker Company of America.

Vice-President and Secretary: James L. Ross, Barrister, etc., Secretary of The Under-Feed Stoker Company of America.

Directors: T. A. Russell, President Willys-Overland Ltd.; Vice-President Russell Motor Car Ltd., and Director of The Under-Feed Stoker Company of America.

A. W. Holmested, Barrister, etc., and Director of The Under-Feed Stoker Company of America.

H. J. Fuller, President Canadian Fairbanks-Morse Company, Ltd.

David Fasken, K.C., President Excelsior Life Insurance Company.

THIS Directorate and re-organization makes available for all industrial Canada the engineering experience and development of mechanical stokers of The Under-Feed Stoker Company of America, and The Under-Feed Stoker Company of Canada, Ltd.

This is a Canadian Company that has carried on business in Canada for the past twenty years. Its stoker equipment is manufactured in Canada, is sold for Canadian money at par.

This is the only stoker company doing business in Canada to-day that is qualified from the standpoint of equipment to handle any type of combustion problem presented, which includes not only industrial heating furnaces but also the burning of mill refuse of all descriptions as well as pure bituminous coal, a combination of bituminous and anthracite or a combination of bituminous and coke breeze.

Jones Stokers vary in size and type from what is known as the Jones Standard Stoker, manually cleaned, to the heavy duty A.C. Stoker for the largest type of power plant and boilers.

Standard Stokers may be furnished with side cleaning attachments, eliminating the manual cleaning methods. A heavy-duty side cleaning stoker is also furnished for boilers from 250 h.p. to 500 h.p. rating.

The wide adaptability and sturdy simplicity of the Jones Stoker, backed by the experience of almost a quarter of a century in the underfeed principle of burning coal, greatly increases the economic advantages of stoker firing for plants of every size and type, regardless of the kind or grade of fuel available. The engineering experience of this Company has enabled it to produce a stoker that is not only highly efficient in operation but extremely low in maintenance cost. The absence of complicated mechanism inside and outside the furnace ensures its low maintenance and a stability in operation which cannot be found in other types of stokers.

See the comparative figures on the following page

UNDER-FEED STOKER
Made in Canada

Before Paying Your Next Coal Bill---

Consider this Definite Cost Comparison of Hand Firing with Stoker Firing

These comparative figures show how the Canadian manufacturer can conserve coal and make money for himself by equipping his plant with JONES STOKERS

Boiler Plant consisting of Six 250 h.p. Boilers:

Assuming 5 boilers operated for 24 hours a day, 300 days a year, 1 boiler held in reserve:

Two shifts of 12 hours---
Labor at 50c. an hour.
Coal at $6.00 a ton.

Cost of installation of Jones Stokers - - - - $17,000.00

Annual Cost of Hand Firing

Labor: 5 men per shift	$ 18,000.00
Coal: 4½ lbs. per B.H.P.	121,500.00
	$139,500.00

Annual Cost of Stoker Firing

Labor: 3 men per shift	$ 10,800.00
Coal: 12% saving	106,900.00
Depreciation: 10%	1,700.00
Repairs: 5%	850.00
	$120,250.00

Capacity of Plant increased from 50% to 100%
Additional saving made possible through burning of cheaper grades of coal

Annual Saving---Stoker Firing over Hand Firing - - - $19,250.00
Return on Investment - - - - - - - - - 113 per cent.

With the engineering service of this Company at the disposal of the Canadian manufacturer, can he hesitate for one moment to call for this service to assist him in solving his combustion problems? By so doing he can conserve the nation's coal resources, reduce its coal importation, reduce his costs of operation, and finally make increased dividends for himself.

Is not this matter of stoker firing worth the few minutes time it will take you to become acquainted with the many mechanical advantages of the Jones Stoker? Our descriptive catalogue will put this information before you. Write for it.

The Under-Feed Stoker Co. of Canada, Ltd.

81 Victoria Street, Toronto



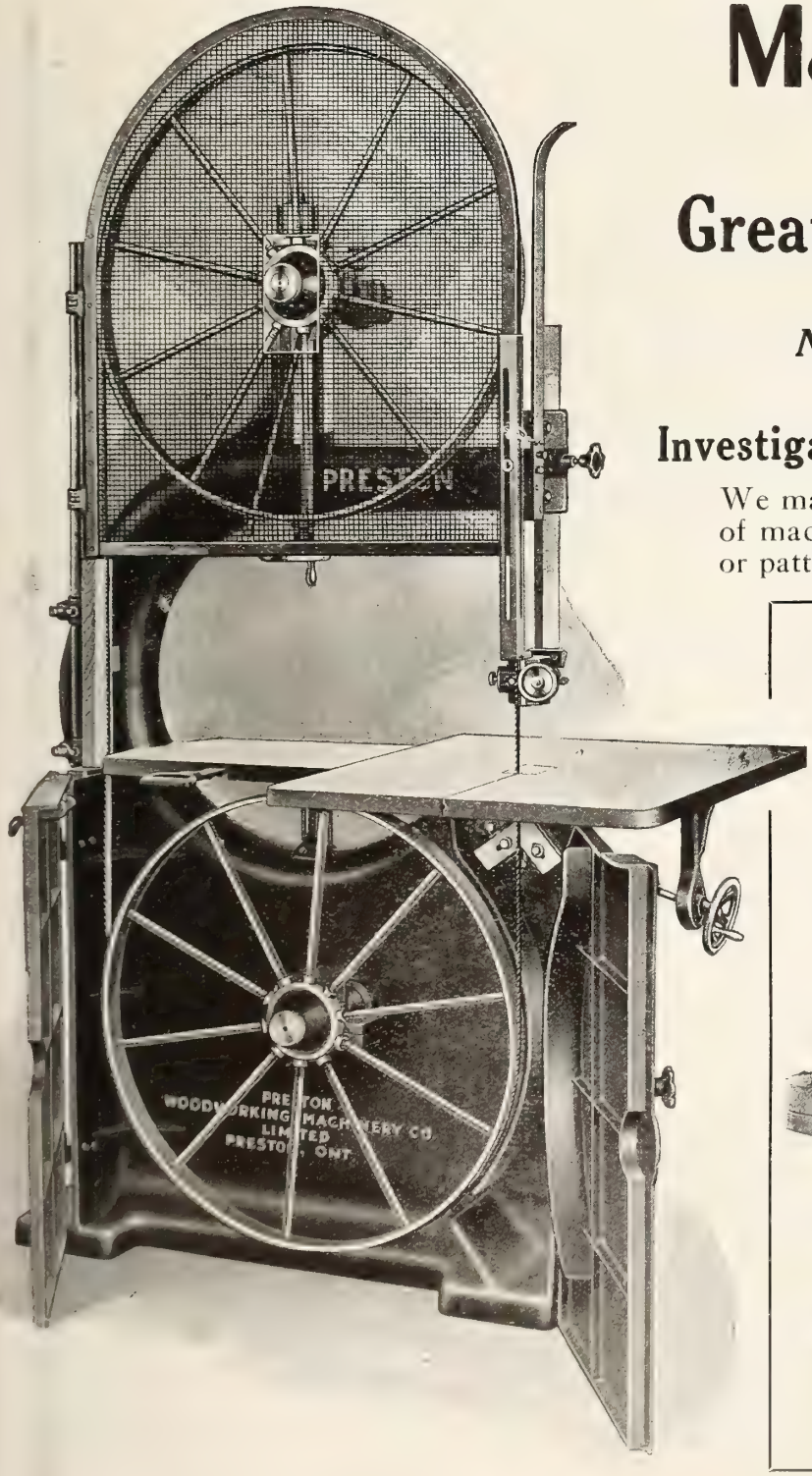
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Guarantees

Greater Production

This is our

No. 132 - 36 inch Band Saw



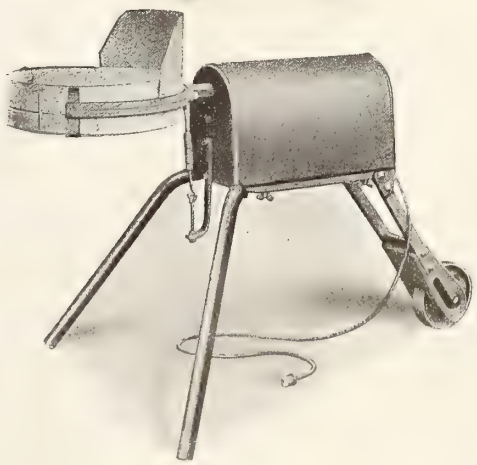
Investigate Its Special Features

We manufacture a complete line of machinery for your carpenter or pattern shop.

A Message To Foundry Men

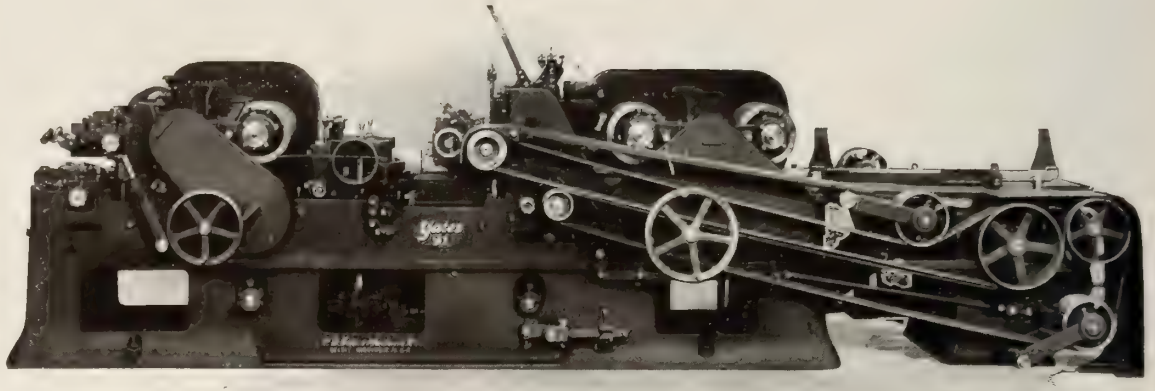
A ten day free trial of our Ball Bearing Electric Sand Riddle will convince you that it will pay for itself in a few months.

"Sift Sand by Electric Power and Cut Down Your Pay Roll"



Preston Woodworking Machinery Company, Ltd., Preston, Ont.

"Pride of the Mill"



No. 91 High Speed Planer and Matcher

That is what millmen of B.C. call the 91. Why? It makes good wherever installed.

New mills put them in---rebuilt mills put them in---overhauled mills put them in---any mill that wants Quality lumber and Increased Production, the No. 91 is the machine you need.

Since its introduction, the 91 has proven its superiority under all conditions.

The larger mills, have batteries of these machines.

Get our New Matcher Booklet --- just off the press---it is yours for the asking.

P. B. Yates Machine Co. Limited

Hamilton, Canada



No. 91 MATCHERS ARE USED BY THE LARGEST AND BEST EQUIPPED MILLS IN BRITISH COLUMBIA TO-DAY. CAN YOU ASK FOR BETTER REPRESENTATION? YOU KNOW THEM

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Empire Pulp & Paper Company,
Vancouver, B.C.

*Cameron Lumber Company,
Victoria, B.C.

*Brunette Saw Mill Company,
New Westminster, B.C.

Okanagan Saw Mill,
Enderby, B.C.

Crow's Nest Pass Lumber Company,
Wardner, B.C.

Campbell River Lumber Company,
White Rock, B.C.

Fernridge Lumber Company,
Lincoln, B.C.

McLelan Lumber Company,
Ladner, B.C.

Edgewood, Lumber Company,
Castlegar, B.C.

B.C. Mills T. & T. Company,
Vancouver, B.C.

Canadian Robt. Dollar Company,
Vancouver, B.C.

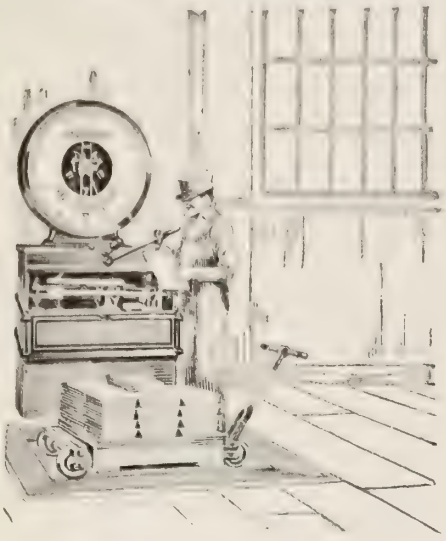
United Lumber & Shingle Company,
Nanoose Bay, B.C.

Canadian Pacific Lumber,
New Alberni, B.C.

East Kootenay Lumber Company,
Jaffray, B.C.

Baker Lumber Company,
Waldo, B.C.

* Two or more machines.



Serving Canada's Great Industries

IN Canada's greatest industries Toledo Springless Automatic Heavy Capacity Scales are helping speed up production and reduce costs.

Instantly indicating correct weight on their easily-read, clock-faced dials, Toledo Scales are eliminating the delays and wastage due to old-fashioned or faulty methods of weighing. They make accuracy of weighing **automatic** and **uniform,** instead of its being dependent upon the patience and skill of the individual operator.

Toledo Heavy Capacity Scales are built on the famous Pendulum Principle, measuring gravity with gravity itself. They were designed and refined by a staff of engineers who have devoted their whole time and attention to building automatic weighing machines. The materials entering into the all-metal construction are selected under rigid specifications and critical tests by expert inspectors—quality only being considered. The parts are machined and assembled by skilled artisans who have had special training in a highly developed organization.

Many distinctive features, such as the compensating double-pendulum mechanism and the non-rocking suspension bearings, increase and prolong the mechanical efficiency of Toledo Scales. They are durable, sensitive and accurate to a hair, the achievement of twenty years' experience in building springless, automatic scales exclusively.

There are more than one hundred styles and sizes of Toledo Scales to weigh everything from an ounce of spice to thirty tons of steel—scales for stores, offices, shipping rooms, warehouses, mills and factories.

Toledo Scale Company, Windsor, Ontario

Largest Automatic Scale Manufacturers in the World.

Branch Offices and Service Stations throughout the Dominion.

TOLEDO SCALES

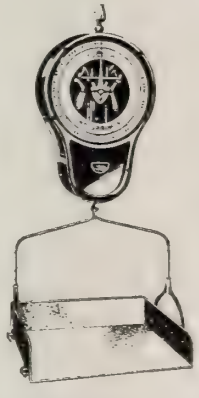
NO SPRINGS—HONEST WEIGHT



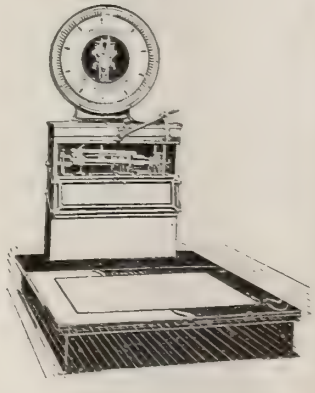
Toledo No. 921
Dormant Scale



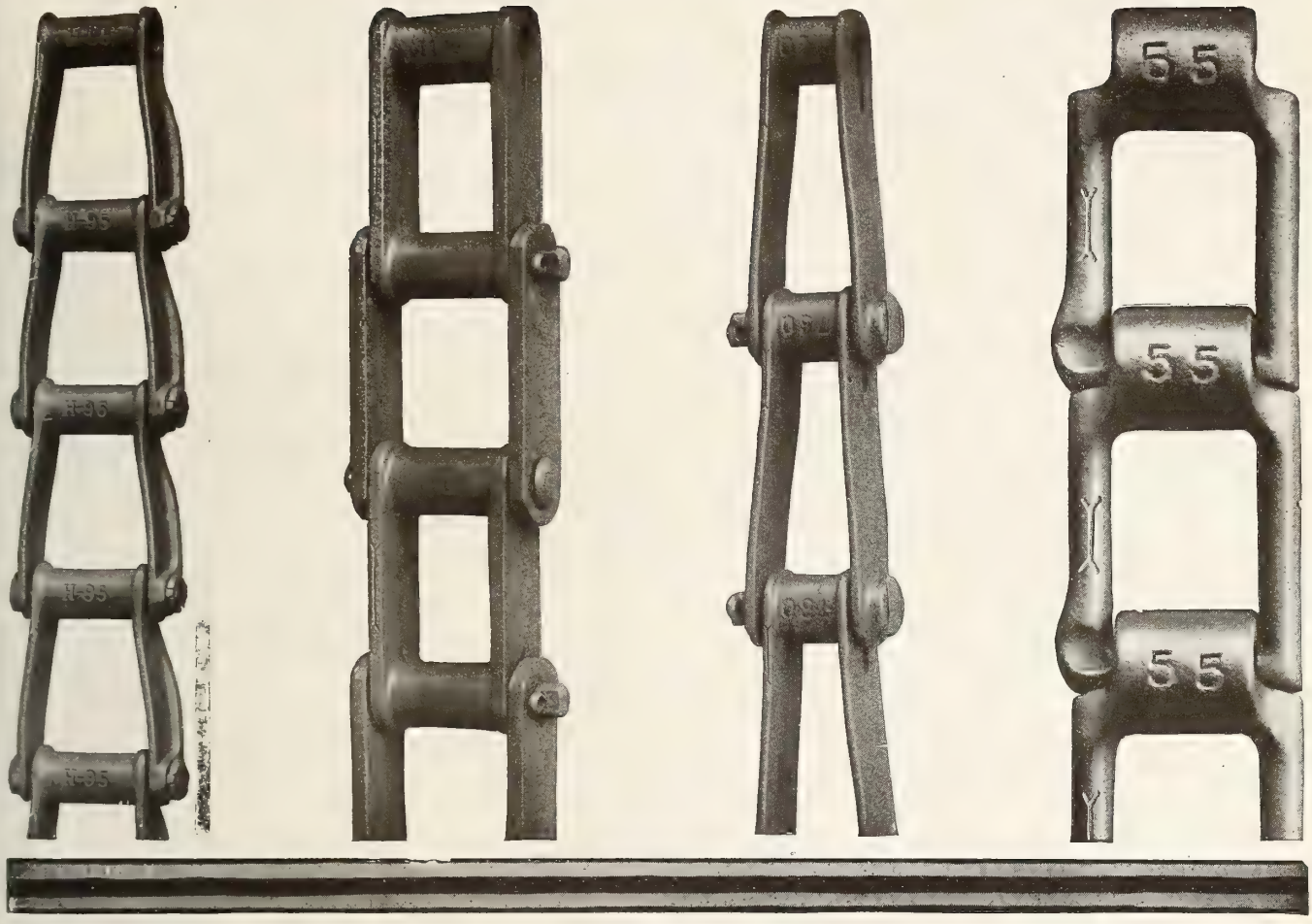
Toledo No. 821
Portable Scale



Toledo No. 1001
Hanging Scale



Toledo No. 1541
Self-Contained
Unit Weight Scale



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FOR EVERY PURPOSE

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And when we say "especially designed" we mean it. For our engineers have spent years in the study of the peculiar conditions and requirements which various industries place upon Link-Belt. Each type has been designed not with the thought of how cheaply it can be made, but how perfectly it can serve its purpose. We show a few types of Link-Belt above. Our catalog shows many others. Send for a copy.

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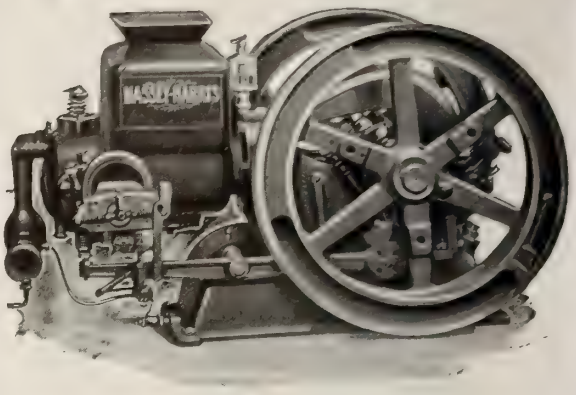
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A Simple and Efficient Carburetor gives a perfect mixture in any kind of weather.

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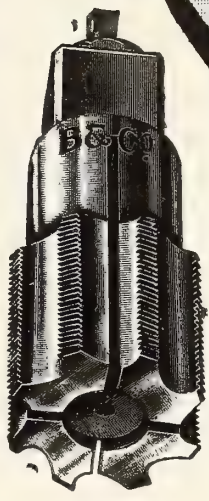
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Drills, Reamers, Taps Dies, Milling Cutters





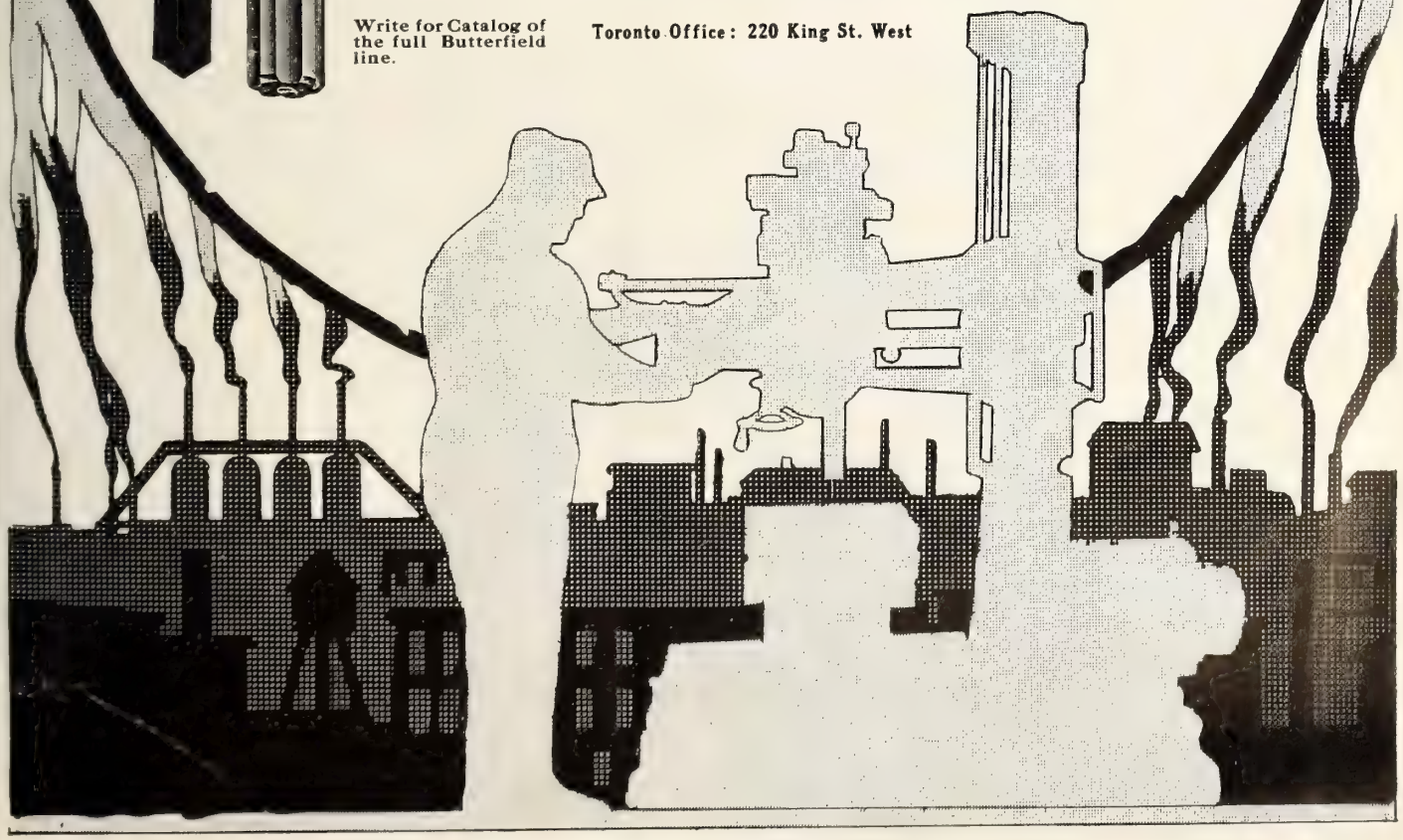
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Three important elements enter into the manufacture of fine tools—design, material, workmanship. In the manufacture of Butterfield tools nothing is left to chance to ensure perfection in each of these elements. Every operation in the Butterfield plant is a precision job—and finally every tool is carefully inspected before leaving the factory to provide against inaccuracies. So when Butterfield tools are put into operation the results of their careful manufacture are shown in *minimum of wear and breakage.*

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Union Twist Drill Co.
ROCK ISLAND, QUE.

Write for Catalog of the full Butterfield line.

Toronto Office: 220 King St. West



OIL WELL SUPPLY CO.
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100 to 5,000 Feet Deep

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FWD Truck owned by J. A. Vaillancourt, Limited Montreal, Que.

The Solution of Canada's Hauling Problems

The Four Wheel Drive Auto Co., Limited, have just moved into their new factory at Kitchener, Ontario. The famous FWD truck will now be manufactured in Canada and first-class factory service will be available to Canadian owners.

The FWD will do ordinary trucking efficiently and economically and will overcome road conditions impossible for any other truck.

The Four Wheel Drive Auto Co., Limited

Factory:

KITCHENER - - CANADA

MADE-IN-CANADA

Illuminating Glassware

At Our Factory in Toronto

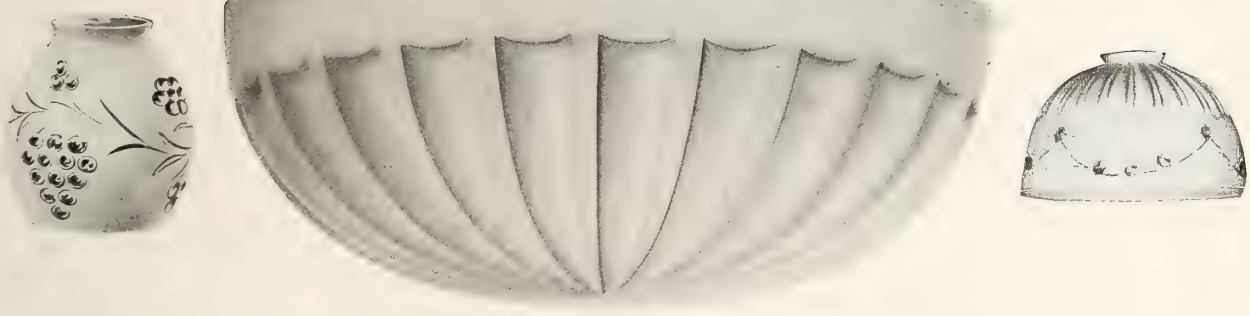
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Shapes, Sizes, Designs and Colorings, and the Line is Constantly Being Added To



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ILLUMINATING GLASSWARE

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We solicit enquiries for glass shapes for Industrial Purposes

JEFFERSON GLASS COMPANY, LIMITED

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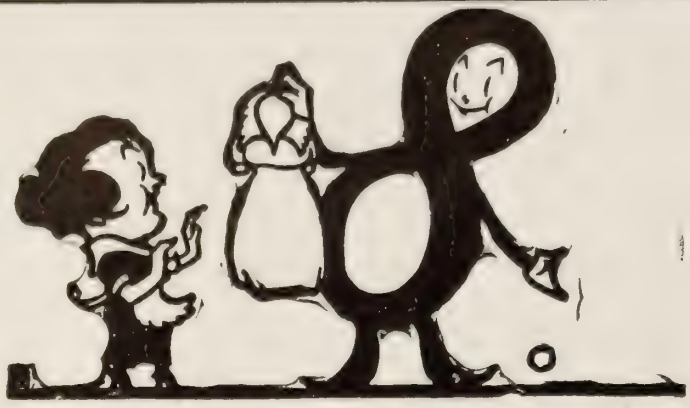
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MONTREAL—285 Beaver Hall Hill
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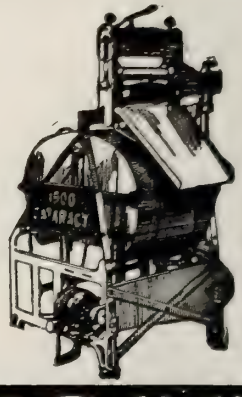
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The water swirls through the clothes in a figure 8 movement four times as often as in the ordinary washer



WASHED IN A JIFFY---SNOWY WHITE

Washed without any bother and fuss and at an amazingly low cost. Because it was washed in a "1900" Cataract Electric Washer with the magic figure 8 movement.

The sudsy, soapy water swirling through your clothes in this figure 8 movement is forced through them four times as often as the ordinary washing machine.

It has a swinging, reversible wringer, too, which also works electrically. You can swing the wringer from washer to rinse water, to blue water, and to clothes basket without moving or shifting the washer an inch.

No longer need a household be dependent on an undependable wash-woman. Just connect the "1900" Cataract Washer with the electric current and off starts the washer. In eight or ten minutes the clothes are clean and spotless. It costs just two cents an hour to operate.

There are no heavy cylinders to lift out and clean. Nor are there any parts to rub against the clothes. It washes everything from heavy blankets to the finest curtains without slightest damage to materials.

1900 CATARACT Electric Washer

WRITE FOR OUR SPECIAL TRIAL OFFER

NINETEEN HUNDRED WASHER COMPANY, 375 Yonge St., Toronto

"A Greater Exposition Than Has Been"

CANADIAN NATIONAL EXHIBITION

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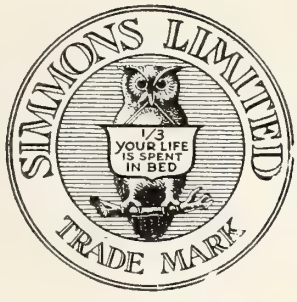
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Character in Merchandising is not determined by any single good trait, but, as with men, is a combination of a number of good qualities.



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THE name "SIMMONS" on a Bed, Spring or Sleeping Equipment is a warrant of comfort, service and dependability. It is a *perpetual* guarantee against all defects in material and workmanship.

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The Simmons idea is merely the modern idea of efficiency in its complete sense applied to the manufacture of beds and bedding.

Simmons Beds, Springs, Mattresses and Pillows are made by Canadian workmen in Canadian factories.

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REST AND UNDIVIDED PROFITS	23,090,440
TOTAL ASSETS	571,150,138

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Established 1871 ***Head Office, Toronto***

SIR EDMUND B. OSLER, President
A. W. AUSTIN, SIR AUGUSTUS M. NANTON } Vice-Presidents

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Reserve Fund and Undivided Profits	**7,500,000**
Total Assets December 31st, 1919	**143,000,000**

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PAID-UP CAPITAL	-	$15,000,000
RESERVE FUND	-	$15,000,000

496

The Merchants Bank of Canada

Head Office, MONTREAL **Established 1864**

Paid-up Capital	$ 8,400,000
Reserve Fund	8,660,774
Total Deposits (April 30th, 1920)	163,000,000
Total Assets (April 30, 1920)	197,000,000

President: Sir H. Montagu Allan, C.V.O
Vice-President: K. W. Blackwell
General Manager: D. C. Macarow
Supt. of Branches and Chief Inspector: T. E. Merrett
General Supervisor: W. A. Meldrum

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MARTINIQUE—Fort de France, Trinite **HAITI**—Port au Prince **ARGENTINE**—Buenos Aires **URUGUAY**—Montevideo
BRAZIL—Rio de Janeiro, Santos, Sao Paulo **COLOMBIA**—Barranquilla **GUADELOUPE**—Pointe-a-Pitre and Basse Terre
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Antigua—St. John's **Bahamas**—Nassau **Barbados**—Bridgetown and Speightstown **Dominica**—Roseau
Grenada—St. George's **Jamaica**—Kingston, Spanish Town **Montserrat**—Plymouth **Nevis**—Charlestown
St. Kitts—Basseterre **Tobago**—Scarborough **Trinidad**—Port of Spain and San Fernando, and Princes Town
BRITISH GUIANA—Georgetown, New Amsterdam and Rose Hall (Corentyne) **BRITISH HONDURAS**—Belize

Capital Paid Up and Reserves - - - - - $35,000,000
Total Assets - - - - - - - - $580,000,000

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Toronto

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HEAD OFFICE: HAMILTON



Established 1872

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Reserve Fund $4,200,000

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XCELADUCT

GALVANIZED

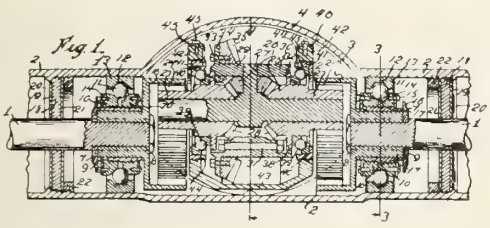
Manufactured by

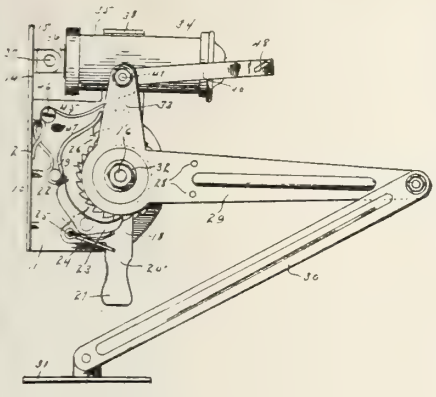
National Conduit Company, Limited

Toronto

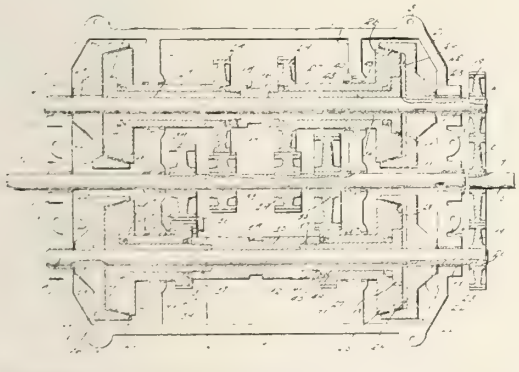
PATENTS FOR SALE

DIFFERENTIAL MECHANISM. The entire mechanical principle in the Morris Super-Axle has been thoroughly tested out in motor car service and proven to be extremely efficient and serviceable. It has been tested out in many cases and found to stand up to hard service. Canadian and United States patent for sale by J. L. Morris, 1100 Vermont St., Lawrence, Kansas, U.S.A.

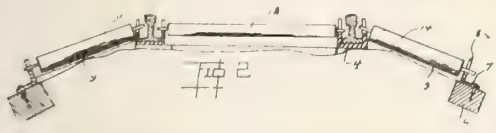




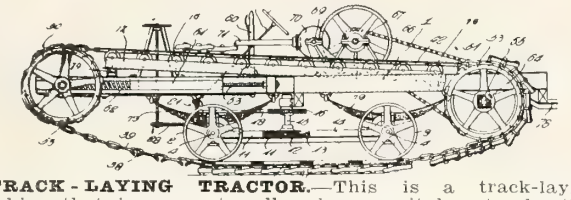
DOOR CHECK AND CLOSER.—Through the operation of a coil spring and checks the closing by a pneumatic device, such as a dashpot which checks the speed of the door and causes the same to close without noise. For full particulars write the inventor, Wm. J. Neidl, 81 Linwood St., New Britain, Conn., U.S.A., whose Canadian and United States patents are for sale.



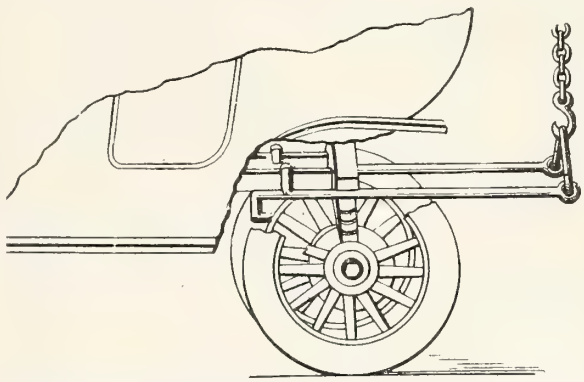
AUTOMOBILE TRANSMISSION MECHANISM, having for its principal object the production of a device which is adapted to impart rotary motion to the axle shaft at various speeds. Canadian and United States patents for sale by J. A. Reinschmidt, Blunt, S. Dak., U.S.A.



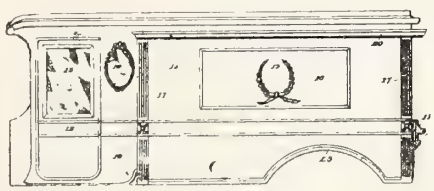
RAILROAD CATTLE GUARD, consisting of rails, centrally and on both sides of the rails is suitably containing means for the same. Full particulars of this invention may be had from the patentee, Peter Emes, Barnesdale P.O., Lake Joseph, Ont., Canada. Where Canadian patent is for sale.



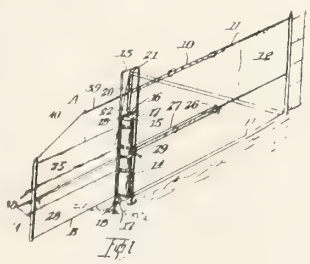
TRACK-LAYING TRACTOR.—This is a track-laying machine that is a great pulle", because it has tracks that cover about 32 square feet of ground surface-gripping capacity. It lays a track on a curve by shifting the front track-carrying wheels to the right or left, and has an indicator means to tell the curve which has been made. Full particulars may be had by writing the inventor, D. L. Healy, 888 Hyde Street, San Francisco, Cal., U.S.A., whose patent is for sale.



AUTOMOBILE LIFTING GRAPPLE. This invention relates to an automobile lifting grapple, adapted to engage the rear portion of the casing as shown in the above illustration. The hook ends are engaged on the front ends of the shaft to a vertical position if it is desired to raise the front end. Canadian and United States patents for sale. Full particulars can be had from Guy Wood, care Harold C. Shipman & Co., Ottawa, Canada.



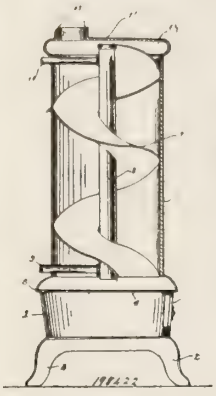
COMBINED CASKET WAGON & HEARSE BODY FOR MOTOR VEHICLES. This invention relates to a wagon and hearse device for motor vehicles whereby certain panels may be placed in position to make up either a casket wagon or a hearse as may be desired. This invention has considerable merit, and those interested in carriage construction should write the patentee, O. J. Mitchell, care The Mitchell Co., Ingersoll, Ont., Canada, for full particulars. Canadian and United States patents for sale.



GATE, which provides a novel construction which can be readily manufactured at a reasonable cost. This gate should be a success in operation if placed on the market by a progressive company. Full particulars can be had from the inventor, Hugh Klug, Assiniboin, Sask., Canada, whose patent is for sale in Canada.

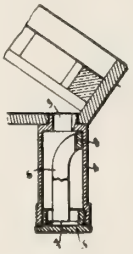
HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

PATENTS FOR SALE



HEATER, consisting of a cylindrical combustion chamber and the spiral shaped diaphragm winding around the central water pipe. Canadian patent for sale by Wasyl Chabaylo, Insinger, Sask., Canada.

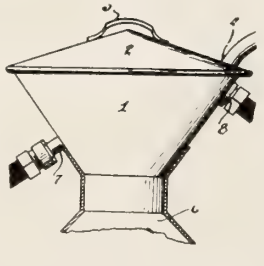
MAGNETIC DEVICE FOR ENGINES. This is in combination with a timer and provides a useful construction whereby lost material discharged from the moving parts of the timer are contained in a separate chamber. Full particulars and copy of the patent can be had from the inventor, H. L. Keun, 6847 Wentworth Ave., Chicago, Ill., U.S.A., whose Canadian patent is for sale.





STATION INDICATOR. Many constructions have been gotten out on station indicators, but after studying most of these the present inventor has worked out a detailed construction which has proven successful in operation. Full particulars can be had from the patentee, H. J. Pendray, 309 Belleville St., Victoria, B.C., Canada, whose Canadian patent is for sale.

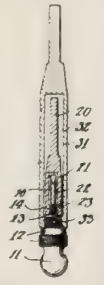
COOLER for LIQUIDS, consisting of a simple and efficient device of this character adapted to be supported by an ordinary milk shipping can or other receptacle and which will thoroughly cool the liquid during its passage therethrough. Write the inventor for full particulars, Bender and Sharp, Woodland, Cal., U.S.A. Canadian patent for sale.

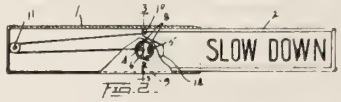




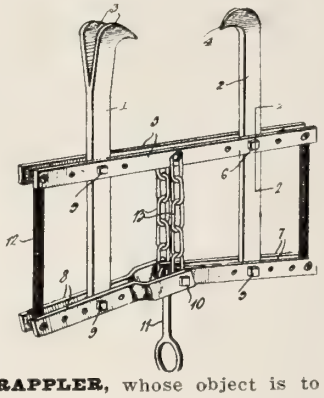
WRENCH, stamped out of plate metal, the body portion being bent to form sides on which the head and handle operate. Full particulars can be had from the patentee, O. A. Van Zandt, Davidson, Sask., Canada, whose Canadian patent is for sale.

SCREW DRIVER, providing a combination tool which can be carried in the pocket, and comprising two or more tools of different sizes, the smaller contained in the larger. Full particulars can be had from the patentee, E. L. Langford, R.F.D. No. 1, Paterson, N.J., U.S.A., whose Canadian patent is for sale.

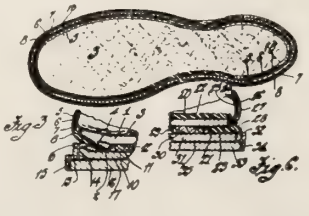




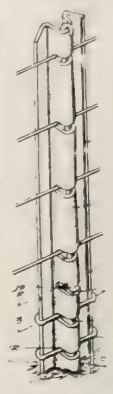
AUTOMOBILE SAFETY SIGNAL. Easily operated, attractive and efficient in use, adapted for use in the rear of an automobile to prevent confusion and consequent fatalities in traffic. For further particulars apply to inventor, Mr. D. R. Lashbrook, 119 E. Main St., Owensboro, Ky., U.S.A., who offers patent rights in the Dominion for sale.



GRAPPLER, whose object is to provide a device which may be engaged with a fixed object such as a beam, joist, log or the like, and clamped thereto and in which the strain of the pull upon the grapple will tighten the grapple on the fixed object. Canadian and United States patent for sale by C. E. Dreiling, Box 252, Henderson, Ky., U.S.A.

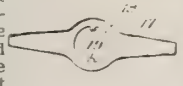


SHOE, consisting of an inner sole, a suitable lining of waterproof covering, so that this makes a most attractive shoe for those who are practically desirous of getting a shoe of comfort and ease. The Canadian and United States patents are for sale by John V. Mattos, 1 Caswell Street, East Taunton, Mass., U.S.A.

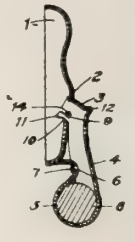


PENCE POST. — Many constructions have been gotten out on fence posts, but the present construction provides one of the most simple and attractive constructions introduced onto the market. The construction is made from pressed metal and the wire attaining means holds the fence wires in certain transferred slots formed in the post. Full particulars can be had from the patentee, John E. McGhee, 20 Harmon Avenue, Detroit, Mich., U.S.A.

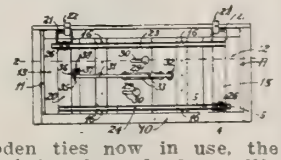
NUT LOCK, an inexpensive, efficient and absolutely reliable device; may be cheaply manufactured and placed on the market at a cost which will not only compete with the present price but which will, in view of its simplicity, efficiency and durability, control the market. The inventor, Mr. George Boychuk, Box 83, P.O., Bienfait, Sask., Canada, is desirous of arranging the manufacture of this article in the Dominion, or is open to negotiations for an outright sale of his interest. Specifications and drawings will be supplied on request.

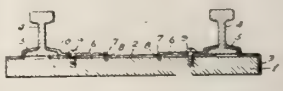


COFFIN HANDLE. This construction is one of simplicity and should be a good seller if properly placed on the market. The construction has been most carefully worked out and full particulars may be had by writing to the inventor, Gustav C. Pahlow, 796 E. Main St., Galesburg, Ill., U.S.A., who has taken out Canadian patent on the same.



RAILWAY ROAD BED provides a railroad bed which will take the place of the ordinary wooden ties now in use, the said road bed being formed of metallic sections that can be assembled into the road bed formation or removed therefrom in a convenient and expeditious manner. Canadian patent for sale by Austin F. Stockwell, 1620 South Burlington Ave., Los Angeles, Cal., U.S.A.



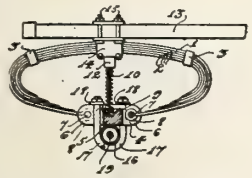


WAGON END GATE, comprising a pair of relatively adjustable sections, plates secured in the inner end of said sections, a lever having one end pivoted and providing a means whereby said sections are retained in closed position. This can be manufactured reasonably and cheaply. Canadian and United States patents for sale. Apply to Harry E. Reed, Rural Route No. 6, Smith Center, Kans., U.S.A.

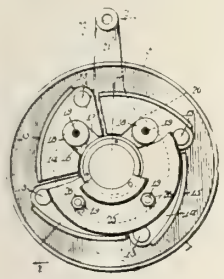
HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

PATENTS FOR SALE

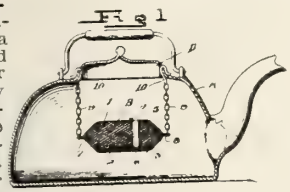
VEHICLE SPRING, provided with means for resisting the compression, which means being so constructed as to offer uniformly increasing resistance to the compression of the spring. Full particulars can be had from the patentee, A.B. Sutzer, Stephensburg, Ky., U.S.A., whose Canadian and United States patents are for sale.



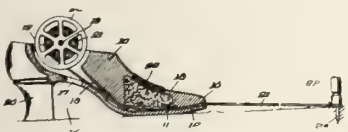
BRAKE, consisting of a novel means, construction in combination with an automobile for brakes on the hind wheels. The construction is novel in make-up and can be placed on a Ford car without making any changes. Patent rights are for sale by S. & A. Clutch and Brake Co., 134 South La Salle St., Room 1612, Chicago, Ill., U.S.A.



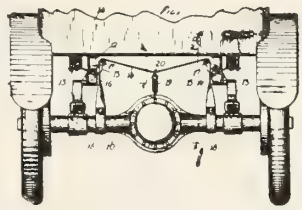
PERCOLATORS, consisting of a suspended container which may swing or rotate inside central foraminous body. Full particulars can be obtained from the patentee, John J. Charvat, Jr., 2427 So. Albany Ave., Chicago, Ill., U.S.A., whose Canadian patent rights are for sale.



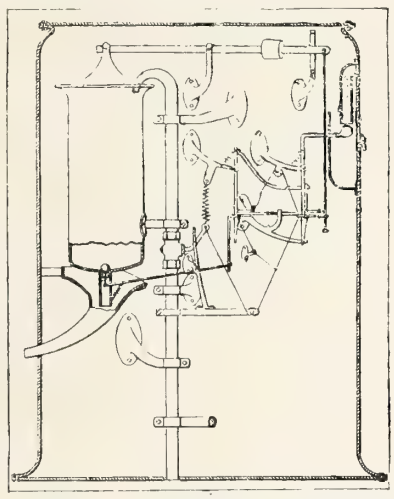
CHALK LINE REEL, consisting of novel construction, which is adapted to retain the wound portion of chalk line, which chalk line when being reeled out will pass over or through powdered chalk and leave the same along the ground. Full particulars and copy of the patent can be obtained from the patentee, John S. Wakimoto, P.O. Box 377, Grand Island, Neb., U.S.A., whose Canadian patent is for sale.



MILK COOLER, consisting of a milk retainer and a means whereby the milk will be allowed to flow over a cooled corrugated surface. Canadian patent for sale by W. S. Beckett, Norwich, Ont., Canada. Write the inventor for full particulars.

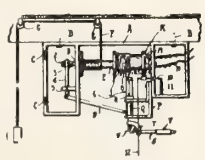


VEHICLE SPRING SNUBBER, which provides a novel and useful construction which spring tension will be snubbed against rebound action which commonly break automobile springs. Copy of the patent and full particulars may be had from the inventor, Spencer F. Hall, 1401 Park Ave., Racine, Wis., U.S.A., whose Canadian patent is for sale.

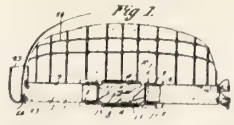


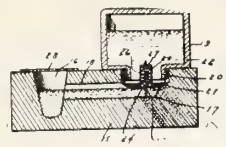
LIQUID MEASURING MACHINE, which provides a casing having a fuel supply pipe, a trip lever, which trip lever is adapted to be engaged by coin, which coin is adapted to cause the rolling of the valve in which the measure fills to a predetermined distance and then shuts off. Canadian patent for sale by Fred C. Dennis, R.F.D. No. 1, Blair, Okla., U.S.A.

TAKE-UP DEVICE FOR LAMP CORDS for installation in garages and other places where portable electric lamps are carried about at long distances from the current-carrying wires. Full particulars may be had from the inventor, Jacob A. Knapp, Tremont, Illinois, U.S.A., whose Canadian and United States patents are for sale.



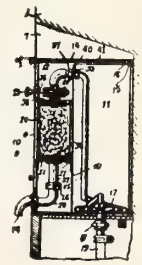
HAT RETAINER, which provides a head-encircling band wherewith a hat may be engaged, novel means being provided for expanding and contracting the band. Full particulars can be had from the inventor, Jacob Hendrickson, 1635 Water Ave., Spokane, Wash., U.S.A., whose Canadian patent is for sale.





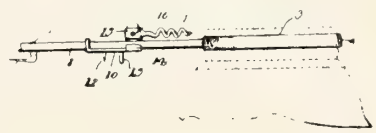
INKSTAND, the object of which is to produce an inkstand in which the channel or duct whereby the well communicates with the source of supply will be so arranged as to constitute an air inlet which will always be open for the passage of air to replace the ink drawn from the source of supply. Canadian and United States patents for sale by Frederick H. Casey, General Delivery, Gardner, Mass., U.S.A.

COOLER AND FILTER, which insures the cooling of a plentiful supply of water, and at the same time thoroughly filters same. Full particulars can be had from the inventor, Harry T. Allen, Guilford, Conn., U.S.A., whose Canadian and United States patents are for sale.

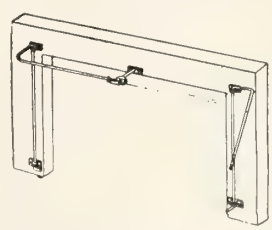




TIRE, comprising a channelled tire having a flat band engaging a periphery of the wheel. Copy of the specifications, drawings of Canadian and United States can be had from the inventor, James C. Mooney, Hot Springs, Ark., U.S.A., whose patents are both for sale.



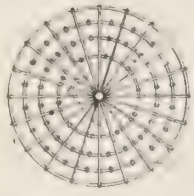
CAN OPENER.—This is a combination construction of a can opener and several other features, such as a corkscrew, lid-cutter, and jar-ring loosener. Full particulars can be had from the Patentee, Harry W. Wiley, Black Lick, Pa., U.S.A.



CURTAIN FIXTURE.—This refers to a particular kind of bracket adapted for use in holding window curtains. Full particulars can be had from Addie Deming, c/o G. M. Maxon, Leamington, Ont., Can., who is desirous of selling her Canadian patent rights.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

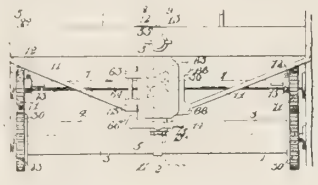
PATENTS FOR SALE



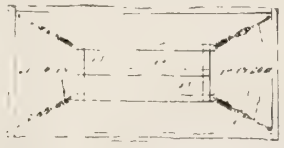
DISH DRAINER, consisting of a series of varied sized annular rings suitably spaced apart whereby dishes or utensils may be placed therein between for draining. Full particulars can be had from the patentee, Emely J. Shaw, Abernethy, Sask., Canada, whose Canadian patent is for sale.

DOOR FASTENER.—This relates to a most simple and easily constructed device for the use as a door fastener, drawings clearly show the construction, and full particulars can be had from the patentee, Clark McKee, R. F. D. No. 2, Box 29, Afton, Iowa, U.S.A., whose Canadian patent is for sale.

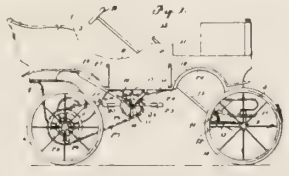




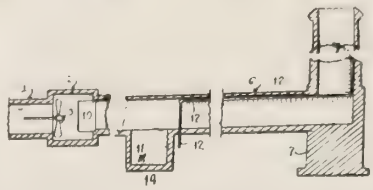
AUTOMOBILE PULLER.—This invention relates to an attachment for automobiles provided with a transmission shaft section removably supported on the end and in alignment with the engine shaft, whereby the rotary motion will be caused to a portion thereto and which pulling power may be inserted. Canadian patent for sale by Louis Hammer, c/o A. Clark Bury, Olds, Alta., Canada.



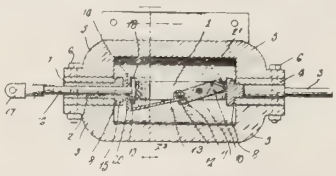
SPRING FOR BEDS.—This invention relates to a novel means of making and fitting springs in bed constructions. Full particulars can be had from A. E. Powell, Box 49, Caron, Sask., Can., who has Canadian and U.S. patents for sale.



PEDAL OPERATING MEANS, for child's vehicles, whereby the vehicle may be easily and quickly propelled by a child's foot. Canadian and United States patents for sale by Savino Giacoletto, 859 Pine St., Hancock, Mich., U.S.A.

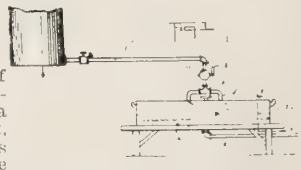


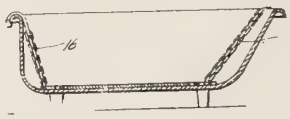
SMELTING MECHANISM, whereby the fumes are arrested before they discharge into the atmosphere and prevent great damage to growing crops in the vicinity. Write for full particulars and copy of the patent to Antonio Ferrari, c/o Collinsville Land Office, Collinsville, Ill., U.S.A.



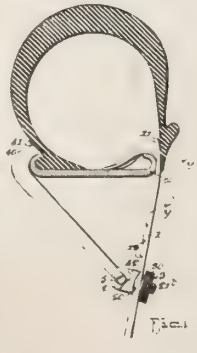
GOVERNOR, the object of which is to produce one of comparatively simple construction and reliable in operation, being fully dust proof. Those interested should write to the inventor, T. G. Bratsch, R.F.D. No. 1, Orange, Cal., U.S.A., for full particulars. Canadian and United States patents for sale.

DEVICE FOR WASHING PHOTOS, consisting of a wash container, a supply tank, a means whereby the level of the wash is kept at a predetermined height. Canadian patent for sale by E. E. Kleine, Rosthern, Sask., Canada.





BATH MAT, comprising a section of waterproof material, plates embedded in the ends of said material and retaining chains hooked to the end of the bath so that a person may step into the bath in safety and overcome the danger of slipping. Canadian and United States patent for sale by Lavina D. Tolley, 130 Lavergne St., Algiers, La., U.S.A.

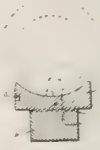


TIRE TOOL. This invention provides a prying-off lever that can be locked in the rim after its hooked end is passed under the tire edge. This improvement can be made most reasonable and should be a good seller when placed on the market. Anyone interested should write to the inventor, George A. Strobeck, Red Lion, Pa., U.S.A., whose Canadian patent is for sale.

ARMORED TIRE, which provides for a pneumatic tire, a protective armor of metal formed of a plurality of articulated sections which will effectually prevent the puncturing of the pneumatic tire without destroying its resiliency. Canadian and United States patents for sale by Chas. E. Peabody, Brooks, Maine, U.S.A.

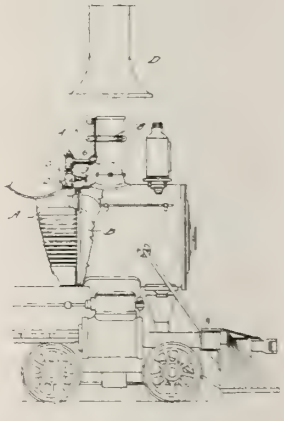


DEMOUNTABLE RIM. This construction is one which can be easily operated and would be inexpensive to manufacture compared to the present constructions on the market. Canadian patent has been taken out by Joseph Walker, 232 College St., Canonsburg, Pa., U.S.A., and is for sale.

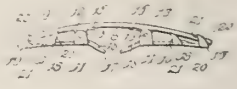


ICE PICK. This invention relates to ice picks and provides a construction which can be easily and cheaply manufactured and would be most efficient and durable in operation. Canadian and United States patents for sale by Elmer Ecklund, 46 Charles St., Jamestown, N.Y., U.S.A.





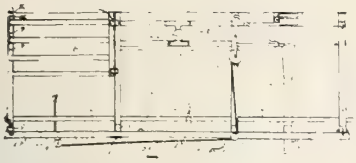
BLOW-OFF, which enables the employees about a roundhouse to easily and quickly exhaust the steam from a locomotive by diverting it through the smoke-jacks. Patents for sale by John L. Good, Box 324, Horton, Kansas, U.S.A.



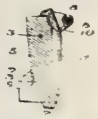
COLLAR CLASP, having a clasp at each end whereby the collar may be retained and held in fixed position. This can be cheaply and easily manufactured, and full particulars may be had on writing the patentee, A. M. Kunz, care of Alfred E. Eicks, 376-378 Arcade Building, St. Louis, Mo., U.S.A., whose Canadian patent is for sale.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

PATENTS FOR SALE

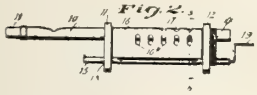


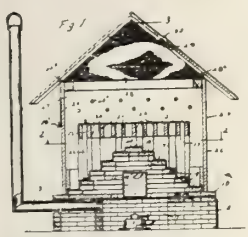
SLAUGHTERING APPARATUS, which provides different respective pens co-operated with the body section, a cutting table and a scalding apparatus whereby slaughtering may be quickly and efficiently carried on with cleanliness. Canadian and United States patents for sale by Wm. H. Hoskin, Troy, Mont., U.S.A.



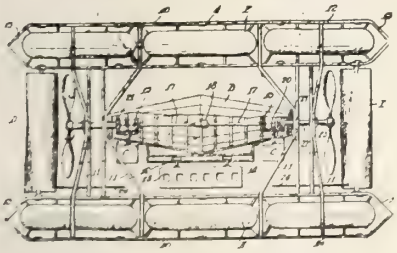
TRUSS-PAD, the object of which is to provide a pad body provided with improved means for strongly and comfortably mounting it on the body strap and adjustably connecting it to the leg strap. Canadian and United States patent are for sale by J. W. Embree, Box 236, Manhattan, Kans., U.S.A.

MUSICAL INSTRUMENT, consisting of a pipe provided with finger openings and musical openings for exposing the finger openings, and means for drawing a music roll over the pipe at the finger openings. For full particulars write the inventor, W. F. Cove, c/o Ensco Products Co., Whitestone, L.I., New York, U.S.A. This Canadian patent is for sale.





CHICKEN BROODER, provided with a fireproof base, a source of heat and a hoover supported on a pyramid. Canadian and United States patents for sale by R. R. Murray and G. L. DePuy, Milford, Texas, U.S.A. For full particulars write the inventor.

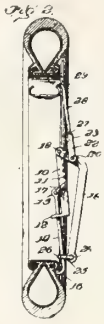


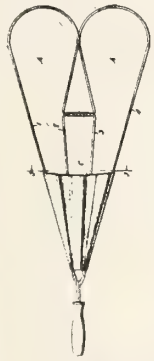
AIRSHIP STATION, consisting of a pair of eccentric platforms rotatably supported on a fore brake, means intermediate of the platform and resilient means operatively supporting the platform. This invention will no doubt find a good market in due time with careful experimental work on the same. Full particulars can be had from the inventor, Chas. Simanik, Calder, Sask., Canada, whose Canadian patent is for sale.



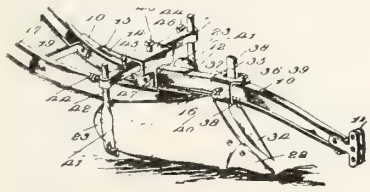
SHOE.—This construction provides convenient and easily accessible purse. The drawing clearly shows the construction and full particulars can be had by writing the patentee, August F. Wirsching, 832 Santee Street, Los Angeles, Cal., U.S.A., whose Canadian patent is for sale.

TIRE RIM DETACHER, consisting of a simple construction adjustable to various sizes of tires, whereby the tire rim may be engaged and constructed so that the tire may be removed therefrom easily. Full particulars may be had from the inventor, Thomas R. Snyder, R.F.D., 35 Elm St., Barberton, Ohio, U.S.A., whose Canadian patent is for sale.

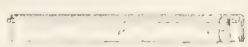




CARPET AND RUG BEATER. This is a device which can be manufactured at a most reasonable cost, and should be a profitable seller if properly placed on the market. Full particulars of the patent can be had from the inventor, C. J. Green, 139½ N. 9th St., Olean, N.Y., U.S.A., whose Canadian patent is for sale

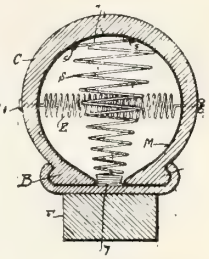


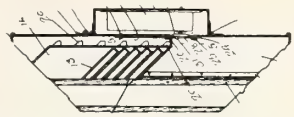
CONVERTIBLE PLOW, which can be provided with either a single or double moldboard. The construction can be easily and quickly taken apart and can be manufactured at a reasonable cost. Copy of the patent and full particulars can be had by writing the inventor, Wm. Wyatt, Sr., 13 Monroe St., St. John's, Newfoundland, whose Canadian patent is for sale.



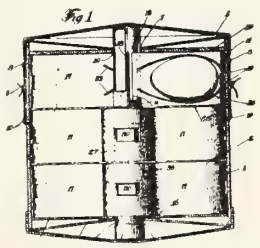
RECEPTACLE FOR STAMPS, consisting of a novel means of obtaining and carrying stamps. It should be a good seller when properly placed on the market. Full particulars and copy of the patent can be had from the inventor, L. S. Minor, 908 Washington St., Portsmouth, Ohio, U.S.A., whose Canadian rights are for sale.

TIRE, provided with spaced springs adapted to hold the rubber casing whereby the cushion portion is thus formed. Full particulars can be had from the inventor, W. Ashcroft, Garson Quarrie, Manitoba, Can., whose patent is for sale in Canada.

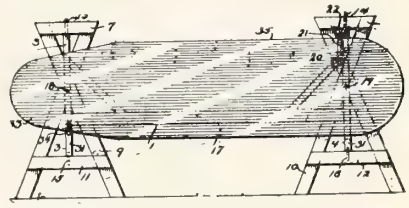




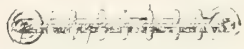
MECHANICAL SAMPLER, for granulated products. This is an unbeatable machine, made in any tin shop at a minimum cost, commercial success in large mills in the United States where it has already been installed. Will sell Canadian rights at a reasonable cost. For full particulars and terms, write Seward E. Cogswell, Central City, Neb., U.S.A.



EGG CONTAINER, designed for shipping eggs through the mail, which may be subject to violent shock without damage. Canadian and United States patents for sale by the inventor, R. Bucher, 285 River Ave., Lakewood, N.J., U.S.A.



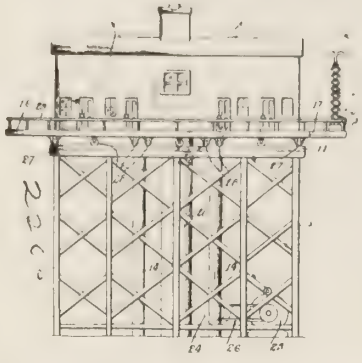
IRONING TABLE, supported on a suitable frame and so connected thereto that it can hinge on one side of said frame, thus leaving the board adapted to be placed in a convenient position out of the road. Full particulars can be had from the inventor, J. T. Hilberry, R. D. No. 1, Box 68, Lansdale, Pa., U.S.A., whose Canadian patent is for sale.



SEPARATOR APRON, including a two-part telescopic frame, a flexible grain receiving member mounted in the frame and equipped with rings sliding over the sides and ends of the latter, and means for holding the parts of the frame together. Full particulars can be had from the inventor, Wm. F. Bowes, Chinook, Mont., U.S.A., whose Canadian patent is for sale.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

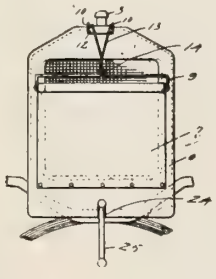
PATENTS FOR SALE



FLYING MACHINE. This invention relates to a novel construction of flying machines which will be found of great serviceability to those machines which are constructed for commercial purposes. Full particulars can be had from the patentee, Chas. Simanik, Calder, Sask., Canada, whose Canadian patent is for sale.

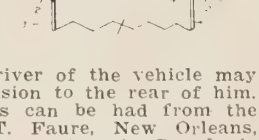


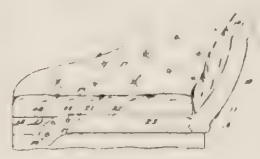
LIFE PRESERVER, including a coat body having sleeves, a collar having head supporting means attached to the coat, and means for inflating the coat, sleeves and collar. Canadian and United States patents for sale by Samuel L. Ross, Lockport, N.Y., U.S.A.



AUTOMOBILE RADIATOR CURTAIN, which requires no special or expensive machinery to manufacture. The construction can be put on or taken off in a few seconds, can be carried under the seat when not in use and can be raised or lowered from the driver's seat without stopping the car. Canadian and United States patents for sale by H. R. Hill, Exeter, Nebr., U.S.A. Write the inventor for full particulars.

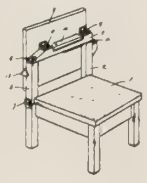
MIRROR REFLECTOR, adapted to be attached and rotatably supported above the wind shield of an automobile, whereby the driver of the vehicle may have a clear vision to the rear of him. Full particulars can be had from the patentee, M. T. Faure, New Orleans, La., U.S.A., whose patent in Canada is for sale.

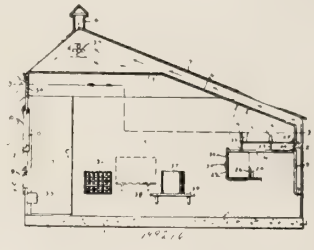




AUTOMOBILE COUCH SEAT, comprising a base, a seat cushion upon the casing, which construction can be made at a reasonable cost and will be most attractive and adaptable for travelling in automobiles. Full particulars can be had from the inventor, T. F. Snyder, Delphos, Ohio, U.S.A., whose Canadian and United States patents are for sale.

COMBINATION CHAIR AND SMALL TABLE OR DESK. The back hinges to form a table surface; the same may be swung to and fro, making it convenient for use. The construction can be made reasonable and attractive for house use and should be a good seller. Canadian patent for sale by Y. W. Rogers, 117 S. Leonard Ave., Mo., U.S.A.





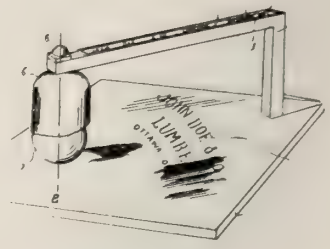
HEN HOUSE. This invention relates to a hen house having a hollow upright wall communicating from the roost. Full particulars can be had by writing the inventor, Wm. C. Clare, 165 W. Utica St., Oswego, N.Y., U.S.A., whose Canadian patent is for sale.



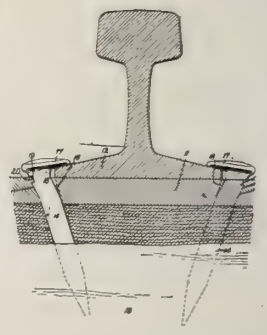
SANITARY DISPENSING APPARATUS, for holding and delivering a relatively small quantity of the contents of a receptacle without subjecting said contents to contamination by exposure or such as would be incident to the removal of the contents by spoons or similar utensils. Full particulars can be obtained from the inventor, Frank You[illegible] 386, Wall[illegible] U.S.A., w[illegible] Canadian patent is for sale.

REIN SUPPORT, preferably adapted for use in connection with double-team harness, serving the purpose of preventing the twisting of the lines. Full particulars can be had from the inventor, Chas. E. Patterson, R.F.D. 4, Jacksonville, Ill., U.S.A., whose Canadian and United States patents are for sale.



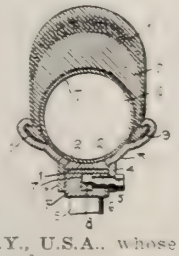


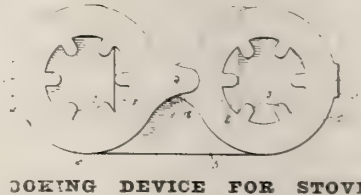
PAPER WEIGHT. This invention relates to a novel paper weight in which an arm retains a rotatable member, the paper being held between the rotatable member and the base. Canadian patent can be had at a reasonable cost and full particulars of which can be had by writing the patentee, J. B. Sumner, 1403 Ford St., West Fort William, Ont., Canada.



RAIL FASTENING, consisting of a rail supporting plate having converging apertures, spikes, adapted to be driven into the tie and the walls of the plate apertures, having guiding retaining members engaging one or the other on driving the spike home. For full particulars write Samuel B. Kull, 235 William St., Bridgeport, Conn., U.S.A.

TIRE, provided with improved slincher channels and a new construction in the general make-up of the tire, and tubes seated within the tire and chamber afforded by the opposite faces of the rim and holder member. Full particulars can be had from the patentee, J. H. DeLong, 553 Sixth Avenue, North Troy, N.Y., U.S.A., whose Canadian patent is for sale.

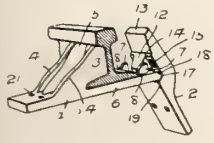




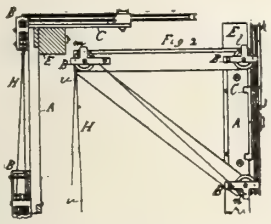
COOKING DEVICE FOR STOVES, comprising a heating chamber, plates pivotally connected to the chamber, and depending tongs formed on the plates. For full particulars write the inventor, Geo. M. Scribner, El Cajon, Cal., U.S.A., whose Canadian patent is for sale.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

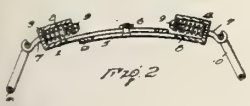
PATENTS FOR SALE



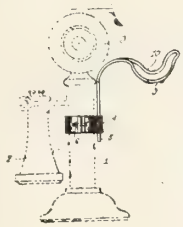
RAIL FASTENER, comprising certain parts which can be easily assembled and lock the rail against displacement. This is an invention of merit and should be carefully looked into by those interested in railroad construction. Full particulars can be had from the inventor, Harry Kovach, c/o Ed. C. Kaburick, Frey Building, 303 So. Main, Hillsboro, Ill., U.S.A., whose Canadian patent is for sale.



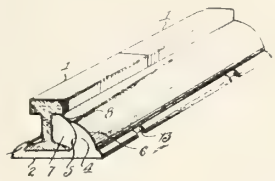
GATE, consisting of a barrier member, posts located on opposite sides of said gate, C-shaped wheels rotatably mounted on the posts and a means whereby they may be operated for operating said gate. Copy of the documents can be had by writing to the inventor, Alexander Porayko, P.O. Star, Alta., Canada, whose Canadian patent is for sale.



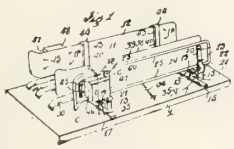
HAME CONNECTION. This provides an adjustable base and hooks yieldably engaged with the opposite extremities of said base whereby the lower part of the hames may be engaged therein. Full particulars can be had from W. E. Mayall, Swan Creek, Ill., U.S.A., the inventor, whose Canadian patent is for sale.



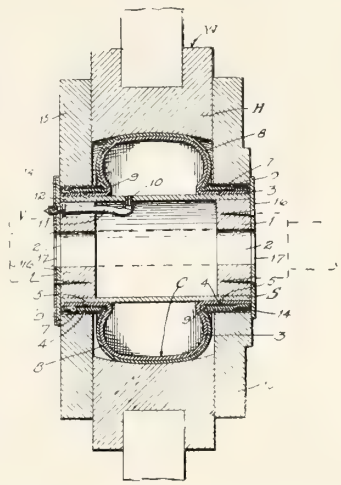
TELEPHONE RECEIVER SUPPORT, which provides an article of usefulness and one which can be manufactured at a reasonable cost to provide a good selling profit. This is a patent which should be carefully looked into, as it has good commercial possibilities. Full particulars can be had from G. W. Collamore, 564 Washington St., Boston, Mass., U.S.A.



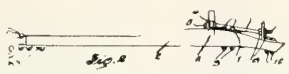
RAIL JOINT, which provides a means formed integral with a rail chair whereby it will effectively hold a pair of rail sections in abutting relation with each other without weakening the rails. Full particulars can be had from the inventor, Wm. H. Mills, Railroad St., Sherman, N.Y., U.S.A., whose Canadian patent is for sale.



MACHINE FOR SEALING BREAD WRAPPERS, and provides opposite members between which the loaves of bread are guided and between which the ends of the wrapper are sealed by means of suitable heating units. Full particulars can be had from the inventor, Richard Sejnoha, care Wolsey Bakery, Wolsey, S. Dak., U.S.A., whose Canadian patent is for sale.



WHEEL, which relates to certain improvements in resilient wheels wherein a pneumatic hub is employed and a means for inflating it from a point at one side of the wheel. Full particulars can be had from the patentee, Joseph Krizek, Gallup, N. Mexico, whose Canadian patent is for sale.



PLOW MECHANISM, which provides a reversible offset, of simple and durable construction, capable of being used in orchards for plowing close to trees and other places where close plowing may be required. Canadian patent for sale by John A. Day, 562 Benton St., Santa Clara, Cal., U.S.A.

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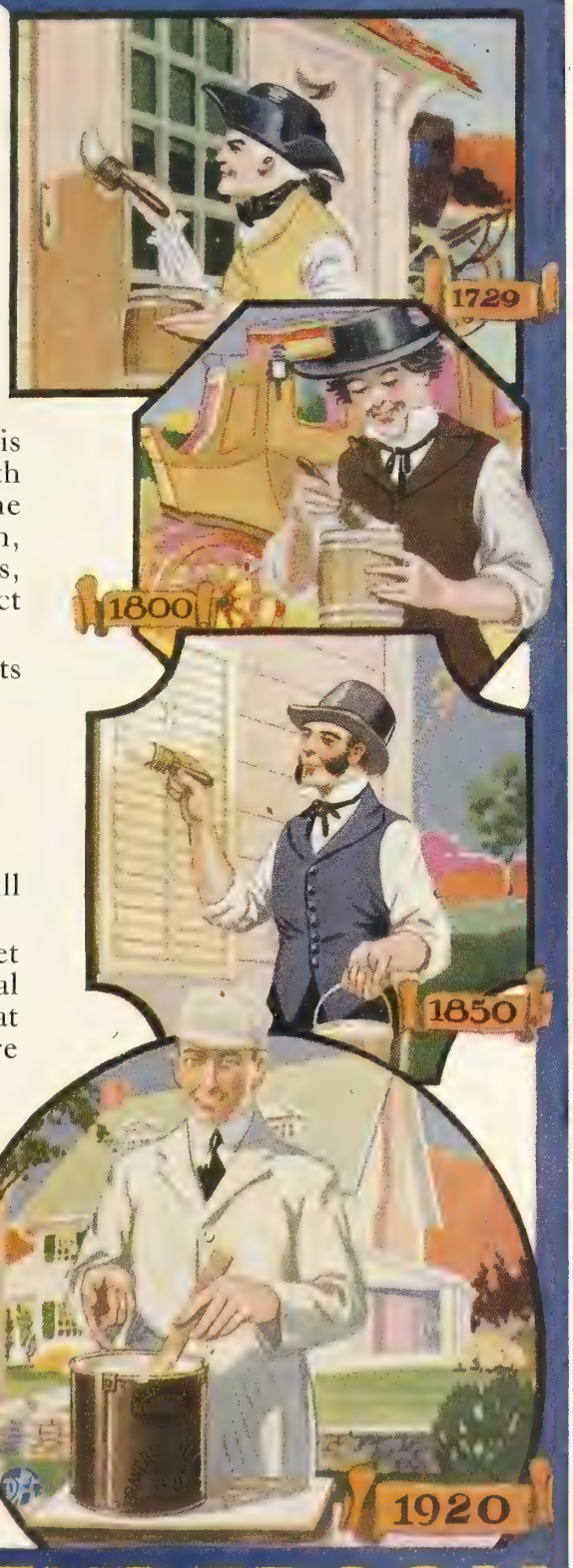
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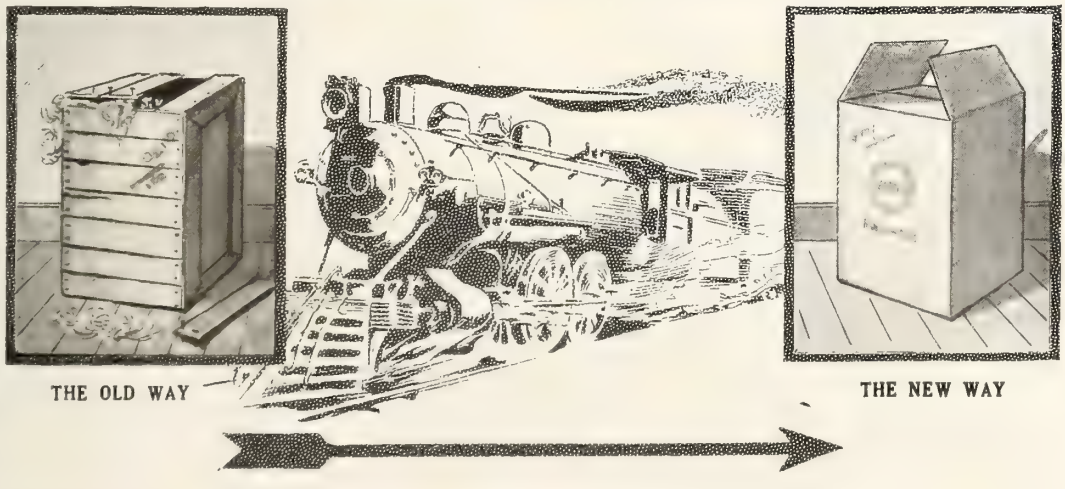
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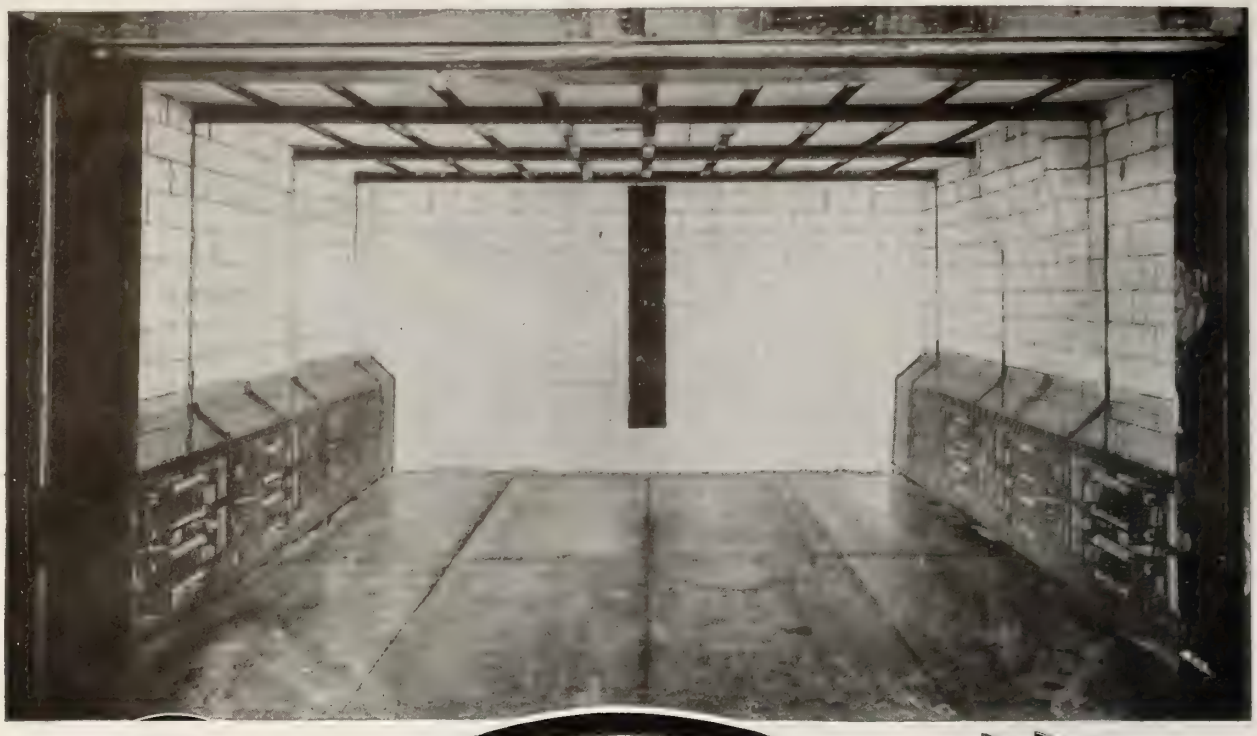
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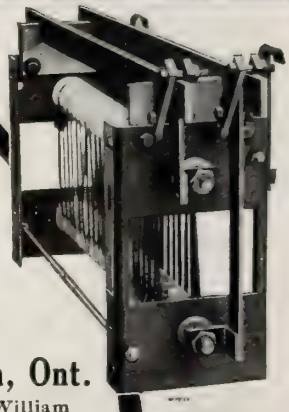
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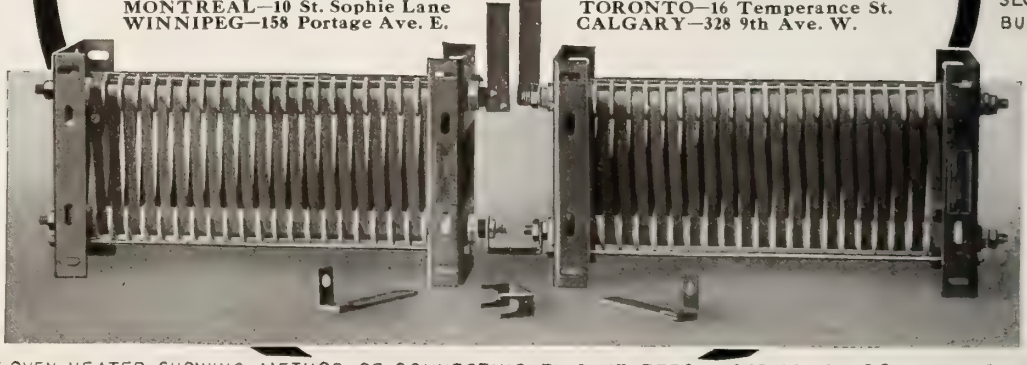
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Vol. XXI. TORONTO, JULY, 1920 No. 3

Editorial Comment

Annual Meeting—1920

DETAILED reports of the Annual General Meeting of the Canadian Manufacturers' Association held in Vancouver, B.C., on June 7th, 8th and 9th, last, will be found in this issue of INDUSTRIAL CANADA.

The regular sessions of the Conventions carefully considered the numerous and lengthy reports which synopsized the business transacted by the Executive Council, Executive Committee, Standing Committees of Council, and Division Committees. All reports were adopted in full with the exception of one paragraph in one report.

The discussion of members present indicated that they were satisfied with the work of the Association during the past year, and also assisted in defining principles which will guide the various committees of the Association during the coming year. The past year was one of unusual growth. About 700 new members joined the Association during the year and a very considerable amount of new organization was put into operation.

At the beginning of the calendar year, the Executive Council decided that the Annual Meeting should be held on the Pacific Coast in order to give members an opportunity to visit the chief cities in Manitoba, Saskatchewan, Alberta and British Columbia to investigate the natural resources of these provinces; and to discuss national problems with representative men of these provinces.

A special train of fourteen coaches, carrying the members of the Association, left Toronto on May 29th, by C.P.R. Stop-overs had been previously arranged at Winnipeg, Brandon, Regina, Moose Jaw, Medicine Hat, Lethbridge, Calgary, and Edmonton, on the way to Vancouver. From Edmonton to Vancouver, the party travelled over the new Canadian National Railway road. Victoria, Saskatoon, Winnipeg, Fort William and Port Arthur were visited on the return journey. In all these cities special programmes had been arranged with the co-operation of local members of the Association. The Lieutenant-Governor of Manitoba addressed the visitors in Winnipeg. They were entertained at the Government House of Alberta, and at the Government House of British Columbia, and were also addressed by the Premier of Alberta and the Premier of British Columbia.

About two months before the beginning of the trip the Executive Committee authorized a campaign of publicity, because it was felt that the Canadian Manufacturers' Association and its objects were not sufficiently understood in the four Western provinces. It was decided to issue a statement setting forth the history, constitution, objects, and the organization of the Association. This statement was published as a full-page advertisement in all daily newspapers in Western Canada and appeared on the days that the special train stopped at the respective cities. In addition, a number of articles were prepared, and given to these newspapers, describing the growth of manufacturing and its importance to the people of Canada.

It is gratifying to record that the newspapers of Manitoba, Saskatchewan, Alberta, and British Columbia, having been put in possession of the facts, published them very fully and, on the whole, with very fair, and, in many cases, very favorable editorial comment. In the same issues these newspapers published a great deal of valuable information in regard to local industrial opportunities.

During the trip, at the meetings arranged in the above cities, there was a very frank and full discussion of a number of important national problems, resulting in an interchange of viewpoints which was beneficial to all interests concerned. Many people in Western Canada were somewhat surprised to learn from the facts placed before them by the Association, that Western Canada is becoming industrialized very rapidly. It was pointed out that in 1900 there was not one member of the Canadian Manufacturers' Association located west of the Great Lakes. To-day there are 700 members of the Canadian Manufacturers' Association west of the Great Lakes. Moreover, certain lines of industry are gradually transferring a considerable part, and, in many cases, the chief part, of their activities to Western Canada.

Members of the party learned a great deal about the natural resources of the four Western Provinces and perhaps more especially concerning those of Alberta and

British Columbia. It seemed to be the general opinion of the manufacturers who were on the trip, that British Columbia and Alberta have a great industrial future, and also that manufacturing in Manitoba and even in Saskatchewan is capable of very considerable development.

The party took a keen interest in agricultural questions, and noticed with satisfaction the indisputable signs of agricultural development and prosperity. At the time of their visit all indications pointed towards unusually heavy field crops this year.

There were representatives at the Annual Meeting from the Maritime Provinces, Quebec and Ontario, as well as from the Western Provinces. It was gratifying to record that, at the meetings in all these cities, the point of view on national problems held by manufacturers, and by those who were not manufacturers, differed very little in fundamentals. There was a commendable desire on the part of all as citizens to approach and study all problems from the national point of view, with a common desire to develop Canada as a great nation within the British Empire.

Western Comment on C.M.A. Trip

EDITORIAL comment in the Western press on the tour of the delegates to the Annual General Meeting through the Western provinces was both cordial and appreciative. The arrival of the excursion train in each city visited elicited a warm welcome, while the remarks of the Association's speakers were well received. The *Calgary Herald* had the following observation to make at the conclusion of the tour:—

"Travelling eastward on their way home from the Vancouver convention, members of the Canadian Manufacturers' Association stopped off in Winnipeg long enough to collect their thoughts with reference to the prairie west, and make known their impressions to interviewers. President McKinnon acted as spokesman for the party, and we are persuaded that what he said was meant. That is to say it was not the usual platitudinous "guff" that so often comes from the tripper who feels in duty bound to say something pleasant, no matter what his real thought may be.

"Our eastern manufacturing friends, many of whom had never before seen the west, were tremendously impressed with what they saw. 'A solid foundation' is the way the president expressed it when speaking of agricultural and manufacturing development. The possibilities for manufacturing, naturally, appealed most strongly to these men, and that they were pleased at the outlook for industrial development west of the Great Lakes means much for the future of western centres of population.

"Of particular interest to Albertans is the president's observation on this province and its possibilities. Speaking of it with a special emphasis he said he and his colleagues were surprised at the potentialities of Alberta, and were impressed particularly by the natural resources of the north. The point of this reference lies in the fact that this letting in of the light with reference to our resources was due entirely to the initiative and energy of the heads of the Alberta Industrial Conference, who planned the union of the manufacturers' convention trip and the annual gathering of the conference delegates, thus getting for the province a publicity such as would have cost hundreds of thousands of dollars to secure in any other way. The province will profit immensely in the future as a result of this good bit of work."

The *Herald* also threw out this hint in connection with the excursion and annual meeting:—"If those Manufacturers' Association convention delegates talk in the east as they have been talking in the west, the west will have reason to be glad for a long time that the convention was staged at Vancouver this year."

The Exhibition Season

WE are fast approaching the season when the annual exhibitions and fall fairs are held throughout the country. On more than one occasion during the past winter, manufacturers were urged to devote more attention to the subject of exhibiting at these events. The opportunity for creating an impression this year is a better one than ever before. Since last summer, exchange with the United States has reached an abnormal figure and the Buy-in-Canada argument has assumed a more practical meaning than ever before. Now, while the movement is so strongly before the people, is the time to give added emphasis to it by featuring the Made-in-Canada idea at every exhibition and fair. We should have more exhibits of Canadian-made goods and placards driving home the lesson of home buying should be widely distributed.

The Case for a Tariff Board

THERE appears to be in some quarters an intentional desire to misrepresent the attitude of the Canadian Manufacturers' Association on the subject of a tariff board. To contend that it is the object of the Association to deprive Parliament of its right to adjust the custom tariff of the country as it may deem best in the national interest is as absurd as it is untrue. It is clearly recognized that Parliament is the supreme authority in all matters of taxation and that Parliament must pass favorably or unfavorably on all changes that may be proposed. What is desired is simply that there should be more expert knowledge of tariff matters at the disposal of the Government and members of Parliament, and the Canadian Manufacturers' Association believes that this object can be best attained by the creation of a board charged with making a thorough and practical study of tariff matters from a broad and independent standpoint.

The proposition is sound when considered along business lines. No man of affairs, who is faced with the solution of a complex problem involving matters of which he lacks expert knowledge, would dream of acting without taking the advice of those best qualified to give advice. If it is a legal question, he calls in a lawyer. If it is one

involving construction, he summons an architect or engineer. If it is a scientific question, the chemist or metallurgist is consulted. Even in matters of employment and management, the experts are coming more and more into request.

Why should not our law-makers have the advantage of expert advice when they are framing the tariff? No man, in calling in an adviser, relinquishes his right to give the final decision, nor would Parliament, in seeking information from a tariff board, be delegating its powers. The great desideratum is more knowledge.

Fire Waste in Ontario.

THROUGH the courtesy of the Fire Marshal's Department, the Association is in receipt of the revised statistics of fire waste in Ontario for the year 1919. Quoting from a letter received from Mr. G. F. Lewis, Deputy Fire Marshal, the following interesting information is furnished:

"The total number of fires for the year was 9,396, showing a decrease in number as compared with 1918, of 344 fires, or 3½ per cent. reduction.

"The total loss for 1919 in Ontario amounted to $10,514,232, as compared with $15,673,240 for 1918, showing a reduction for 1919 of $5,159,008, equal to 33 per cent.

"The amount of insurance paid during the year on account of this loss was $6,957,558, compared to $9,675,337 paid by the insurance companies in 1918, showing a reduction in the amount paid by the insurance companies during 1919 on account of fire loss of $2,717,779, equal to 28 per cent.

"The loss not covered by insurance on property destroyed or damaged by fire in 1919 amounted to $3,556,674, and the loss not covered by insurance for the year 1918 amounted to $5,997,903, showing a reduction in this item for the year 1919 of $2,441,229, equal to 40 per cent.

"In compiling our statistics we divide the classes of property destroyed or damaged by fire into twenty-six classifications, and of these the fires in dwellings numbered 5,804, or 62 per cent. of the total number of fires for the year. The loss on dwelling house fires amounted to $1,753,333, or 17 per cent. of the total loss for the year. These figures may be compared with the 1918 statistics which show 5,896 fires in dwellings, which caused a loss of $1,804,717.

"While a large percentage of fires occurred in the homes of the people, practically two out of every three, it is to be noted that the largest loss in any one class was in that of the manufacturing and industrial plants. While the number of fires in this class were only 450, or 5 per cent. of the total number, the loss sustained amounted to $2,441,124, or 23 per cent. of the total loss from all sources in the province during the year. The insurance paid on account of this loss amounted to $2,028,235 or 30 per cent. of the total amount of insurance paid by the companies for the year, and the amount of loss not covered by insurance was $412,889, or 11½ per cent. of the total for the year.

"As you are no doubt most interested in this class it is interesting to note the big reduction from the figures of 1918, which are as follows: 486 fires, or 5 per cent. of the total number caused a loss amounting to $7,565,322, equal to 42 per cent. of the entire fire waste for the year 1918. The insurance paid by the companies on account of this loss amounted to $3,991,806, or 41 per cent. of the total; and the loss not covered by insurance for the year 1918 amounted to $3,573,516, equal to 60 per cent. of the total.

"The next classifications as regards amount of loss was that sustained by 988 fires in mercantile stores during 1919, which caused a loss of $2,312,623. These mercantile stores were responsible for 10½ per cent. of the total number of fires, and 22 per cent. of the entire loss for the year 1919. Comparing these figures with the previous year of 1918 we find that there were 1,166 fires in mercantile stores causing a loss of two and a half million dollars.

"While the reduction in the number of fires may not seem in proportion with the reduction in the total amount of loss, still we have grounds for encouragement, especially in view of the fact that the reports for small fires such as chimney fires, where little or no damage was caused, are being furnished to us more regularly; and in addition I find quite an increase in the number of automobile fires which in 1918 numbered 138 and increased in 1919 to 221; and also garage fires which in 1918 numbered 91 and in 1919 increased to 149.

"The statistics for Ontario show a reduction in the fire waste for the year 1919 as compared to 1918 of $5,159,008, or 33 per cent. The estimated figures for the Dominion of Canada show a total loss for the year 1919 of $24,231,401, as compared to $31,815,844 loss for the year 1918, being a reduction for the year 1919 of $7,584,443, or 24 per cent.

"The statistics for the whole North American continent as estimated for the year 1919 show a total loss amounting to $267,273,140, as compared to the total loss for 1918 amounting to $317,014,385, being a reduction of $49,741,245, or 15 per cent.

"If with the hearty support and co-operation of the manufacturers of Ontario we can succeed during the present year in reducing the fire loss to anything like a proportionate amount of that of last year we will be able to efface from Ontario the unenviable reputation of being the most wasteful province in the country as regards fire."

The New President of the Association



JOHN S. McKINNON

LOYAL service to the Association through a long series of years has had its reward in the election of John S. McKinnon, of Toronto, to the presidency for 1920-1921. As ordinary member, member of committees, chairman of Toronto Branch, and vice-president of the General Association, Mr. McKinnon has given steady attention to the work of the organization, and has gone forward, step by step, to higher duties and responsibilities. He is an all-round type of man, efficient and progressive in his own business; a student of public affairs, well read and well travelled; an active public-spirited citizen, whose special interest has lain in the promotion of technical education; a speaker of considerable force and versatility, and above all a genial, approachable man with a facility for making and keeping friends. He is a native of Huron County, Ontario, and since 1906 has been associated in various capacities with the Company of which he is now the president —S. F. McKinnon & Co., Limited, Toronto.

Proceedings of the Forty-Ninth Annual General Meeting of the Canadian Manufacturers Association

VANCOUVER, JUNE 7, 8 and 9, 1920

AT 2.30 p.m. on Monday, June 7, the first business session of the Convention was opened by the President, Mr. T. P. Howard, who called upon Mr. J. B. Thomson, Chairman of the British Columbia Division, to preside over the inaugural ceremonies.

Mr. Thomson, on behalf of the British Columbia Division, extended a hearty welcome to the visitors from the East and invited Mayor Gale, of Vancouver, to formally open the convention.

Mayor Gale expressed his pleasure at the opportunity not only to declare the convention open but to add a word of welcome to the members of the Association.

"It is fitting," said Mayor Gale, "that we should come together and discuss our various problems. I had an opportunity of being in Ottawa a couple of years ago and meeting many of the Canadian manufacturers, and on that particular occasion one of the Cabinet Ministers, whose name I shall not mention, dropped a remark which was very significant to me. He admitted that in British Columbia we had a very rich and very great Province; that in the City of Vancouver we had a growing and one day destined to become a very great city, but the great trouble was we were too far away. I asked what he meant by that, and suggested that possibly he meant we were too far away from Ottawa. Now, of course, that may be true from a political standpoint, but I do not believe we are too far away for the Dominion of Canada, and I believe that is being fully demonstrated as the years go on. Those of you who have had the privilege of visiting Vancouver before to-day, and I know many of you have, must have become impressed with the importance of Vancouver not only as a city but as a city of the Dominion of Canada. We believe those who have given the matter any thought whatever realize that Vancouver is destined one day to be one of the important cities of Canada, if it has not become so at the present time.

Welcome to Vancouver

"It is hardly necessary for me to say that you are welcome to the City of Vancouver; it is hardly necessary for me to say that the smallest child who is old enough to read the papers or go to school or understand what is happening day after day is glad and more than pleased to know that busy business men have been able to leave their businesses and journey the distance required to come to the City of Vancouver. We appreciate it very much, and I understand our good friend Mr. Thomson and his Executive of this branch have arranged a very extended programme for them. If he should fall down or the Executive should fall down in any way, I can assure you that the city officials stand ready to fill in any gaps that may be left open."

On resuming the chair, the President thanked Mayor Gale for his words of welcome and continued—"I want to say one word to prove to those present that we do not have an East and a West. This morning on my arrival I received a small parcel and on opening it I found this gavel which I was asked to use while presiding at the meeting. It comes by registered mail from our second vice-president, Mr. W. S. Fisher, of St. John, N.B. to Vancouver, B.C. There is no East and West in that. (Applause.) This gavel came across Canada, our Canada that we all ought to serve and to promote in the best interests of everybody."

The Business Session

Proceedings at the first session included the presentation of the Financial Report, the delivering of the President's annual address, the reading and adoption of the report of the Executive Council and the delivery of an address on "Trade with the Orient," by Captain Robert Dollar, all or which are published in full in the following pages.

The second business session took place at 8.50 p.m. on Monday, June 7, and was featured by the presentation of the reports of the Insurance and Industrial Relations Committee and by a lecture on Japan by A. E. Bryan, Canadian Trade Commissioner at Yokohama.

The third business session was held on Tuesday morning, June 8, when reports of the Legislation and Transportation Committees were presented and discussed. At the fourth business session on the afternoon of the same day, the reports of the Tariff, Membership and Commercial Intelligence Committees and of the General Manager were presented. The final business session on Wednesday morning, June 9, was taken up with the election of officers and committees and the adoption of resolutions.

Entertainment

Entertainment features of the convention were well looked after by the committees in charge of arrangements. On arrival in Vancouver on June 7, members of the Association were guests of the Vancouver Board of Trade at luncheon; on June 8, they were entertained at luncheon by the Vancouver Rotary Club, and on June 9 by the Vancouver Kiwanis Club. On the second day of the convention, in the evening, a cruise was enjoyed to Howe Sound on board the S.S. *Princess Patricia*, while on the afternoon of the third day a trip by motor was taken to New Westminster, where the delegates were royally entertained.

The trip to Victoria on Thursday, June 10, the entertainment in the beautiful capital city and the return to Vancouver on June 11, formed a fitting conclusion to a most successful convention. At Victoria, the members were charmed by a visit to the beautiful home and gardens of Mr. and Mrs. R. P. Butchart at Tod Inlet. They were later guests of the Victoria Board of Trade at an entertainment at the Royal Victoria Theatre and were driven to various points of interest in and about Victoria on Friday morning. Following a Rotary Club luncheon, they embarked for the return journey.

An Analysis of the Year's Developments

Progress of Manufacturing—Conditions in the Field of Labor—The Evolution of Class Government—The National Debt and Methods of Taxation—The Question of Public Ownership—Other Outstanding Matters

By T. P. HOWARD

President, 1919-20, Canadian Manufacturers Association

IT is my privilege, as your president, to welcome you to this annual general meeting, which marks the conclusion of the forty-ninth year of this Association's history. It is significant to see here assembled such a number of representatives from great industries in all parts of Canada, and your presence indicates profound and widespread interest in the work of this Association in its relation to the country's industrial progress.

Before proceeding further, I wish to express our sincere thanks and appreciation to the mayor and council of Vancouver for their cordial invitation to our Association to hold this meeting here. In accepting that invitation I beg to say, on behalf of the Association, that we esteem it a great honor and privilege to be the guests of this beautiful city. I also wish to extend the thanks of members from other provinces to our members in British Columbia for their kindly welcome, and also for the great amount of work they have done in preparation for this meeting.

A decade has passed since the Association held its last meeting in Vancouver, and those who have not had the privilege of visiting the city since that time are agreeably surprised at the signs of growth and prosperity that are evident on all sides. It was the destiny of Vancouver that it should be a great ocean port. The history of this part of British Columbia is associated with the names of such empire builders as Captain James Cook, who visited this coast in 1778; Captain George Vancouver, who gave his name to the city; Sir Alexander McKenzie, who made the first journey from Eastern Canada in 1793; Simon Fraser, who explored the Fraser River in the early years of the nineteenth century, and Lord Strathcona, who drove the last spike on the Canadian Pacific Railway in 1885.

Great Natural Outlet.

As a port, Vancouver serves as an outlet for the products of one of the richest areas, so far as natural resources are concerned, remaining in the world to-day. Tremendous inroads have been made during late years on the natural resources of older countries, and while we have been in the habit of congratulating ourselves on the immense resources of Canada, we have sometimes lost sight of the fact that these resources are not inexhaustible, and have been sharply reminded by the Commission of Conservation that in certain fields they are limited. This applies to British Columbia probably less than to any other province of Canada, because this province seems to have been singularly blessed.

Some provinces are adapted for manufacture, others for farming, others for mining or lumbering; but the Province of British Columbia possesses the materials and conditions that are especially suitable for the development of all four of these basic industries. Statistics show the most remarkable and gratifying growth in such British Columbia industries, as manufacturing, farming, lumbering, mining, fishing, fruit-growing and shipbuilding.

British Columbia is making great strides in shipbuilding, and as this industry means a great deal to the province, it is most important that it should have the greatest possible encouragement for its further development. It is significant to notice the increase in the shipping facilities of this province. In addition to the great drydocks at Prince Rupert, Government docks are being undertaken at Vancouver at a cost of $4,000,000, while other harbor improvements will cost another $1,000,000.

The advantages of the city of Vancouver as a port and a manufacturing city are emphasized by the fact that all Canadian transcontinental railways and every trunk railway in the United States are connected with Vancouver, and eight transoceanic shipping lines, in addition to coasting vessels, dock here. Moreover, the harbor is never closed and is accessible every day of the year. Three hundred and twenty-one ocean-going vessels visited Vancouver harbor during 1919, conveying $84,000,000 worth of merchandise.

In addition to establishing a reputation as a great ocean port, the city is rapidly becoming known as an industrial centre, and the articles manufactured here are being shipped in increasing quantities not only to other parts of Canada but are also finding their way to markets abroad. The creation of an industrial area, Granville Island, in the heart of the city, covering twenty-eight acres of land suitable for sites, illustrates the manner in which the city encourages industry and the location of thirty-nine factories on this area proves that advantage is being taken of the opportunities provided.

Vancouver has not only established herself as a city, but has passed that mysterious stage where a city becomes marked in the public mind as one of the future great cities of the world.

The Association's Work.

During the past year the Executive Council of the association dealt with a great many important matters that are recorded in the reports of the various standing committees that supervise the technical departments of the association. As these reports will be submitted to you for approval, I will not anticipate their contents, but I can assure you that they represent a great deal of valuable accomplishment. The report of the Executive Committee, who are practically your Board of Directors, gave a summary of their work, and the report of the general manager will deal with the administrative side of the association's affairs.

In my remarks I shall try to define the point of view of the Executive Council in dealing with various problems that are of interest to us as citizens of Canada as well as of technical importance to us as manufacturers.

Development of Manufacturing

We are specially interested in the industrial growth of Canada. For a period of fifty years, this can best be illustrated by a comparison of the value of goods manufactured at the beginning and end of that period. The census estimate of the value of the output of Canadian factories for 1870 was $221,000,000. For 1917, the last year for which figures are available, it was $3,000,000,000, an increase of about 1,400 per cent. A comparison of the census figures for 1900 and 1917

shows an astonishing development in manufacturing since the beginning of this century:

	1900.	1917.	Inc. p.c.
Mfg. Estabs.	14,650	34,392	135
Capital	$446,916,487	$2,786,649,727	523
Value of products	481,053,375	3,015,577,940	525

Last Year's Problems

Immediately following the armistice, Canada was confronted by the problem of transferring the activities of her citizens from a war to a peace basis. Half a million men had been withdrawn from ordinary occupations to military duty. Agriculture, manufacturing, and transportation had been transformed by the necessities of war and an enormous export trade had been developed. The prospect of the loss or partial loss of this export trade at a time when employment was urgently needed, caused great misgivings. It was feared that a shrinkage of export trade and a possible delay in getting the country back to peace conditions would cause widespread unemployment and a serious depression. I do not think this Association ever admitted that these evil results would necessarily follow the war.

Misgivings Unjustified.

Certainly the members did not shape their policies as though they were actuated by any such ideas. Time has proved that these misgivings were not justified. We have held the greater part of our export trade, and instead of unemployment we are now experiencing an actual shortage of labor. I believe that these dangers were avoided by the courage and resourcefulness of the Canadian people, who looked the situation fairly in the face and took the most practical means of dealing with it.

The Dominion Government appointed the Canadian Mission in London, and later extended credits to certain European countries for manufactured and agricultural products. Scores of Canadian manufacturing firms immediately sent their travellers to Europe, and were successful in securing a great volume of business. Manufacturers taking a great chance, not only began immediately to change their factories back to a peace basis, but also cast about with the greatest possible energy to develop foreign markets and manufacture new lines of goods.

Farmers' organizations also sent their representatives abroad, and were successful in selling their products. The result was that the industry of the country scarcely hesitated in spite of the critical conditions existing all over the world. Our export trade during the year ending March 31, 1920, amounted to $1,286,658,709, as contrasted with $1,268,765,285 for the year ending March 31, 1919. To-day in Canada, as for employment, no man or woman who wants to work need be without it at the highest wages ever paid in this country.



Thomas Palmer Howard

Whose Year as President of the Association Has Witnessed a Remarkable Growth Both in the Membership and Services of the Organization

The Canadian Army

The people of Canada owe a triple debt to the Canadian army; first, for its war record; second, for the manner in which it has resumed the occupations of peace. There are bound to be some exceptions among 500,000 men, but I think I am safe in saying that over 95 per cent. of the Canadian army have resumed peaceful occupations successfully. We owe a third debt to the army, because the great majority of ex-soldiers were opposed to any revolutionary methods of redressing grievances in this country and have stood firmly on the side of law and order.

About half the Canadian army came out of the factories, and it has been encouraging to see the way in which they have resumed their work in the factories, and the splendid manner in which even the disabled men have become independent and efficient. It is also gratifying to see that the Government has spent, up to the end of 1919, the sum of $40,000,000 in the work of re-establishing soldiers, and that, through the Government employment agencies, up to the end of last year, over 106,000 soldiers had been placed in positions.

Post-War Work

Splendid work is being accomplished by the military hospitals and training schools. In the matter of pensions, we hope that the most generous treatment possible will be given. Canada must take proper care of her wounded and disabled soldiers, and also of the dependents of those who were killed or disabled in the war. These pensions must not be pittances, merely sufficient to keep the recipients alive, but must be adequate to maintain them in decency and comfort, and to afford them opportunities for education and advancement.

Labor

In the Canadian labor field during the last year there have been three outstanding events. First, the investigation of the Royal Commission on Industrial Relations, which toured Canada in the spring of 1919, and reported to the Government last summer; second, the National Industrial Conference which was held in Ottawa last September; and, third, the first International Labor Conference authorized by the Peace Treaty, which was held in Washington last November. Members of this Association gave evidence at the twenty-eighth sittings held by the Royal Commission on Industrial Relations from Victoria, B.C., to Sydney, N.S. Representatives from the

chief lines of industry in this Association were present at the National Industrial Conference, along with representatives from railways, lumbering, mining, fishing, banking, and other employers. A past president of this Association represented the employers of Canada at the International Labor Conference in Washington.

One might think from reading certain newspapers and listening to some speakers that all Canada was suffering acutely from a malady vaguely described as "unrest." No doubt there are fever spots where there are either malignant influences at work or where there are real grievances that require remedy, but these isolated cases are not typical of conditions throughout the country, nor of the mental attitude of the great majority of Canadians.

Radicals Drying Up.

The outstanding feature in labor matters during the year has been the gradual elimination of the revolutionary element by moderate labor men. The political and social ideas put forward with considerable vehemence by a minority have been tried partially and have failed utterly in the estimation of wage-earners themselves. On the other hand, a great deal has been done by the moderate wage-earners, who are in the great majority, with the co-operation of other citizens who have the welfare of the country at heart, to make the conditions and rewards of wage-earning citizens more satisfactory. More will be accomplished, but it would appear now that progress will be made in the spirit of co-operation and in the knowledge of the fact that there is a relationship between the interests of all classes of citizens, irrespective of their occupations.

Frequent use of the term "workers" has evolved the pertinent question, "Who is a worker?" So far as Canada is concerned, it would be easier to answer the question, "Who is not a worker?" No one works exclusively with either the body or the brain. All work requires a union of the faculties of both body and brain in varying combination, according to the nature of employment. The number of Canadians who are not workers in the real sense of that word is so small that they are negligible.

There are plenty of men who can sit down and in an hour draw up a magnificent scheme for the reconstitution of society and the redistribution of what they call wealth. The trouble with such schemes is that they do not work because they are opposed to fundamental natural laws, and fail because they are rejected by the common sense of the people whom they are designed to attract and mislead.

Although there is perhaps not sufficient information to pronounce a verdict on the great Russian experiment which has a few enthusiastic admirers, even in this country, we can at least point out some of the results which have been attained to date. In the first place, it withdrew Russia from the war and increased the loss of life and money suffered by the Allies; second, it is maintaining Russia in her position of complete isolation from the rest of the world; and, third, it has produced the announcement, published recently in the American official organ of Sovietism, that the Russian Soviet is conscripting the labor of the entire population above sixteen years of age. Further, the State Department of the United States says that the establishment of a ten and twelve hour day in Soviet Russia was announced by the Bolsheviki on February 19 last.

Hours of Work.

Hours of work must be governed by a country's necessity for production. The result of the experiment of establishing the national eight-hour day in France by law does not seem to have been satisfactory, according to an announcement made by the Minister of Commerce for France at Paris on April 11 last. In referring to the report of the commission which had been appointed to investigate the results of the establishment of the eight-hour day, the minister said that production in France had decreased in exact proportion to the reduction in the hours of labor.

It is being realized that there is no vague fund provided by supernatural means out of which wages, interest charges, operating costs and dividends are paid. These have a common origin, and that origin is production. The Province of British Columbia, for example, fifty years ago, did not promise any man a living or even a minimum wage or fixed hours of labor.

The Province of British Columbia said: "There is timber in the forests; there are fish in the rivers; there are valuable minerals in the mines; there is wealth in the land. If farmers, miners, fishermen, lumbermen, and manufacturers come here and take these natural resources, and out of them fashion something that will sell, and find some one who will buy it, they can have a living." That was the bargain the Province of British Columbia made with its settlers. These pioneers provided capital or borrowed it; they secured directing ability; and they worked as long and as hard as they could.

The result was that a portion of the great natural resources of British Columbia, over and above what was needed for her own population, was made saleable, and markets have been secured for it, and out of the proceeds of these sales wages have been paid, organizing and directing ability has been paid, and capital has been given a return. In other words, the production of British Columbia has been its sole source of wealth. It is against this iron fact that so many of the theories of social and political reorganization break to pieces. Improvement of the living conditions of those engaged in industry, and of other people as well, comes gradually, not by violence and revolution, but through the application of science, intellect, experiment and industry to the processes of production and distribution.

II Group Government

The separation of elected representatives of the people into groups, which has been in existence in Europe for some years, shows signs of being introduced on this continent, where up to the present time the two-party system of government has operated. If a Parliament is made up of a group of farmers, another group representing labor, another group representing retail and wholesale trade, another group representing transportation, etc., it may be difficult to carry on government without considerable intrigue and friction. Under the old system of government, with all its faults, the members of a party were held together by a common belief in one principle or policy. Under the group system of government each group, according to experience, pursues very persistently those objects which are of peculiar interest to the group. There is also a constant shifting of alliances among the groups. It may be that the group system is the next logical development in government, and if so, it will be inevitable; but it seems reasonable to fear that if the respective groups forming the Government are actuated by entirely selfish motives, Parliament and Legislature may degenerate into a half dozen hostile, intriguing camps, and public business which should be conducted with the national point of view and for the national welfare, will be impeded.

It is an historical fact that no one class or group can long maintain privileges that are secured at the expense of other classes, because the injured classes finally combine to limit such privileges. We do not want warring groups in Canada,

but rather a union of all groups to advance the interests of our common country.

The Cost of Living.

The high cost of living, which oppresses us all, is not a local condition in Canada—it is world-wide—the inevitable result of a great war—and is caused partly by scarcity of materials and the immense demand of Europe for everything we produce. Another cause is the great inflation of currency which is largely a credit expansion necessitated by government borrowing. A further cause is extravagant living, for it is obvious that if every family in Canada increases its luxuries and comforts, the scarcity of material will also be increased, and the price of commodities will rise in consequence. It has been stated in some quarters that manufacturers favor high prices. This is not true for a very good reason. Manufacturers are the heaviest buyers.

During a period of high prices materials are scarce, dear and difficult to secure. Wages are enormously increased owing to the increased cost of living. This adds to the risk of manufacturing operations. Moreover, when prices are unduly high, the purchasing power of the public is decreased, which results in a decrease in the manufacturer's output. People will not build, for example, after prices reach too high a point. In a country, such as Canada which is of great area and of a relatively small population, a manufacturer especially desires output because the most satisfactory results are secured from a large turnover at a price that will induce the public to buy freely. An increased production of all materials from farm, factory, mine and forest, is the greatest need of Canada to-day, and will do more than anything else to lower the high cost of living.

Export and Import Trade

The following statistics from the returns of the Department of Trade and Commerce indicate our position in regard to export and import trade:

	Year Ending March 31st.		
	1918.	1919.	1920.
Imports	$962,543,746	$916,429,335	$1,064,516,177
Exports	1,586,169,792	1,268,765,285	1,286,658,709
Total trade.	$2,548,713,538	$2,185,194,620	$2,351,174,886

Summarizing the above our extraordinary war trade figures appear to have been fairly well sustained. It must be remembered, however, that these statistics are in the terms of values, and values are represented in dollars. As the purchasing power of the dollar has been steadily diminished there has been a greater decrease in the volume of our trade than the above figures indicate. If we had statistics to show tonnage or other terms denoting quantity they would give a much more accurate picture of the situation.

However, with this reservation in mind, our trade figures for the past year can be viewed with considerable satisfaction.

The Dominion's Debt.

The net debt of Canada, after deducting inactive and non-productive assets, is $2,273,305,436, a great sum, it is true, but not serious if balanced against the industry of our people, and our national wealth, which was estimated in December, 1919, by the Dominion statistician at sixteen billion dollars.

It is desirable for us to curtail as much as possible the imports of those goods that can be made in Canada. The purchase of materials made at home is not in the interests of producers only, but benefits all classes who share in the proceeds of the sale directly or indirectly. The quality of Canadian products in many respects, stands very high, but efforts should be made to improve still further the quality of all classes of goods and to keep the prices at as low a level as possible so as to encourage the sale of our own goods to our own people.

Taxation

Taxation is not a popular subject, certainly not with manufacturers, who are the heaviest taxpayers. Manufacturers pay the bulk of customs tariff duties. They pay business taxes, excise taxes on materials, stamp taxes, taxes on insurance, taxes on goods sold to them, income taxes, corporation taxes, and, in addition, the ordinary taxes paid by the consumer; but we must face the fact that Canada has been through a great war which has cost enormous sums of money, and our increased taxes are for the purpose of helping to pay the cost of the war.

The Government must have revenue, and it is much better to struggle with the difficult problem of securing it by current taxation than to adopt the easier and more dangerous method of unnecessary borrowing. Sir Henry Drayton, Minister of Finance, is to be commended for defining in his budget speech the policy that Canada must stop borrowing and must pay as she goes. The best way to secure relief is to increase production. If our country is prosperous the citizens can pay the taxes, but if the country is poor and non-productive taxes will become an intolerable burden. This point should be remembered: Taxes may be heavy although we won the war; but what would these taxes have been if we had lost the war?

In spite of our great national debt and increased burden of taxation and other domestic problems, Canadians in comparison with other peoples are surely not in any dangerous position. Does any Canadian really doubt the future of this country? There will be periods of prosperity and periods of hard times, but with our resources, our industries, our fertile agricultural lands, the character of our population, is it not certain that the progress of Canada in the future, as in the past, will be steadily onward.

Tariff Increases.

Since the conclusion of the war there has been a very general increase in the protective tariffs of nearly all the industrial countries of the world, because these countries, particularly those that were engaged in the war, were anxious to provide employment for their own population. The tariff of the United States has not been altered. In Canada, the 7½ per cent. war tariff has been entirely removed. The position of this Association in regard to the Canadian customs tariff was clearly defined at the last annual meeting, where a resolution was passed advocating a revision of the tariff and the establishment of a permanent tariff board of experts who would act in an advisory capacity to the Government.

I do not see any reason why this resolution should not be reaffirmed at this meeting. The objects of the fiscal system of Canada should be to diminish, as far as possible, the buying of goods from other countries, which can be produced here; to facilitate the importation of raw materials which cannot be produced at home; to export our own materials in the shape of the finished products; and to make Canada as self-contained as possible by developing and encouraging activities which will give occupation to our citizens. The Association last year also went strongly on record in favor of tariff preferences among the various countries constituting the British Empire. The war strengthened the ties which bind the Empire together, and we believe these ties would be



The Manufacturers Party and Members of the Alberta

In this group picture will be seen several notable figures. From left to right in the front row will be Edmonton; Mayor Brown, Medicine Hat; T. P. Howard, Montreal; Premier Stewart,

further strengthened by the extension of Imperial preferential tariffs.

Position of Great Britain

Canadians note with great thankfulness the amazing recovery of Great Britain from the war. During the war Great Britain bore the brunt of the conflict by land and sea, and in the money markets of the world. There were some who prophesied that the strain had been so great that she could not recover, yet the Hon. Austen Chamberlain, Chancellor of the Exchequer, speaking in the House of Commons on April 19 on the budget, described the present position of Great Britain as "One of unexampled and unequalled strength." As citizens of a British country, we rejoice to see the mighty power of the Mother Country reviving.

Transportation

Since our last annual meeting the Dominion Government has added to its railway systems by the purchase of the Grand Trunk Railway. The people of Canada will not be so much concerned with alleged principles underlying ownership of railways as they will be with results. They want service at the lowest cost, consistent with quality of service. The standard of railway service furnished by the Canadian Pacific Railway in the past and at present to the people of Canada is a tribute to the efficiency of private management, and should be maintained.

The success of the Government's experiment cannot be estimated at the present time, and it will succeed or fail according to the quality and cost of the service supplied, and to the extent to which Government management is divorced from political interference. From the last report of the Minister of Marine, it would appear that the new Canadian merchant marine has made a good beginning and has proved a great assistance to Canadian trade. We are all vitally concerned in the transportation problem. Transportation should be cheap as well as efficient because transportation charges form a very considerable part of the cost of living.

Public Ownership.

During the year there has been some extension of the principle which is commonly known as public ownership. Again here we should not yield to the temptation to argue over abstract principles. The application of the principle of public ownership is, after all, entirely a matter of degree. There must always be public ownership in the sense that the Government must control certain services, and this has been admitted for centuries. No one, for example, would advocate placing the army or navy under private ownership and management. The post office should be under Government management. As in similar cases, the real question is: "Where shall the line be drawn?"

Some people advocate that all transportation systems should be owned and operated by the Government. A great many people argue that water power should be owned and controlled by the Government. A few people even advocate that all factories should be owned and operated by the Government. Other progressives contend that all land, including farms, should become Government property, should be divided into areas, and that over each area a Government inspector should have full control and that all farmers should become Government employees on salary. Similar proposals are advocated in regard to publishing, banking, insurance and wholesale and retail trade.

If Government ownership and control is carried to the extreme lengths which are advocated by some people it logically means that private property will disappear and, to some extent, that personal freedom will disappear, and that the entire population will become civil servants on the national payroll, to be promoted, transferred, pensioned or dismissed according to the pleasure of the Government in power. One naturally wonders in contemplating this tremendous scheme, who would make the appointments, who would decide the type of works that would be done by each individual, who would fix his pay and decide his hours of labor, and what would be the incentive of the individual, to put forth his best efforts?

I believe that moderate-thinking men do not condemn or approve public ownership or private ownership as such. On the other hand, they are inclined to say:

Let us have public ownership where it can be demonstrated that it is more satisfactory to all classes than private ownership.

It has been the practice of British people to go very slowly from precedent to precedent, and only to accept what appears to have reasonable chance of succeeding; and in regard to this question of public ownership we should do well to be guided by this practice.

Agricultural Features.

We are all hoping to see a good wheat crop this year in Canada. In 1918 the average yield was only ten bushels; in 1919 eleven bushels, while the average for ten years ending 1919 was 17.27 bushels per acre. We are getting into the fortunate position, however, that we are not so badly affected



Industrial Development Association at Edmonton

noted Brig.-Gen. Macdonald, Medicine Hat; J. E. Walsh, Toronto; A. W. Thomas, Toronto; Mayor Clarke, Edmonton; S. R. Parsons, Toronto; S. J. B. Rolland, Montreal; George Brigden, Toronto

as formerly by a poor wheat crop, owing to the great growth of fruit growing, stock raising, dairying and other agricultural activities.

The value of the occupied farm lands of Canada averages about $52 per acre, as against $40 before the war, an increase of 30 per cent. The annual value of field products, according to the last census statistics was about one and one-half billions. There are 730,000 farms under cultivation in Canada and to show that the Maritime Provinces, Ontario and Quebec have large agricultural interests, it is only necessary to point out that two-thirds of these farms are situated in these provinces, while one-third are located in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia. The size of the farms, however, in Western Canada is much greater than in Eastern Canada, but the same general rule maintains—one farm supports one family.

Manufacturers are glad to see that the assets of the chartered banks have passed the three billion mark, which it is worth noting, is the last reported annual value of the manufactured goods of this country. Manufacturers and farmers have to depend to a great extent on banks for loans to develop their industries, and if the banks are strong, they can give the necessary as instance to productive enterprises.

Immigration

Our high year in immigration was 1915, when, in round numbers, about half a million people came to Canada. Immigration fell off naturally during the war, but there are abundant signs that the tide is once more turning towards Canada. Last year, the immigration was about one-quarter of that in 1913, but this spring every boat entering a Canadian port is loaded with settlers. It is most desirable that we should have increased immigration. We need more people to increase our food production; to increase the home market, and to help us pay our taxes. But we want immigrants of a desirable type, for whom occupations are available in Canada, and who will assimilate with the population of this country, and also we want people who have British ideas and are content to live under the British form of Government, and not under some imaginary form which they and their friends have conceived.

Comes of Age.

It is interesting to note that the Association really becomes of age this year. Although it was founded in 1872, from that year until 1899, it was provincial in character until it was reorganized on a national basis in 1899.

In 1899, the Association had about 300 members. The staff consisted of three, a secretary, a bookkeeper and a stenographer. The Association now has a salaried staff of forty-seven, and maintains in addition to the head office at Toronto, divisional offices at Amherst, N.S., Montreal, Quebec, Winnipeg, Man., and Vancouver, B.C., and furnishes services from seven technical departments, each provided with experts.

The membership of the Association has grown from 300 in 1899 to 4,061 at present.

In conclusion may I appeal for the continued and increased support of the membership of the Association during the coming year. It is a branch of their business. While part of its work is necessarily defensive, it is most desirable that its most important functions should be constructive in character and designed to assist in promoting the welfare and prosperity of the entire country.

In regard to myself, I beg to thank the members, and especially those on the various committees, for the kind and effective assistance they have given me during the year that I have been privileged to act as president.

Appreciation of Address

Following the reading of the President's annual address, a vote of thanks to Mr. Howard was moved by Mr. S. R. Parsons, Toronto, seconded by Mr. J. R. Shaw, Woodstock. Mr. Parsons said in part: "Mr. President, I think that magnificent address ought not to be passed over without commendation on the part of the members who are here assembled this afternoon. It appears to me it is one of the sanest and best presidential addresses that has ever been delivered. It is based on common sense and sound experience, and, gentlemen, we find that when we go outside of our experience and the experience of the past, and we lend ourselves to theories of all sorts, we get into trouble. The world is full of theorists to-day. Canada is full of theorists. We have them in the pulpit, we have them in our college halls, we have them among the ranks of the farmers, we have them among the ranks of labor, we have them among the ranks of other classes, and it is quite possible we have one or two among the ranks of the manufacturers. (Laughter.)

"I believe that this splendid address of the President's, and for which I am sure he will receive our heartiest commendation and our thanks and congratulations to the fullest possible extent, as I say, is based on common sense and sound experience, as our life insurance men say. The things that are unstable need to be criticized in these days, and there is no greater stabilizing influence throughout the whole of Canada than the Canadian Manufacturers Association, and I

believe, gentlemen, the time has come when we must not be afraid to take our part in national life by bringing everything to the national standpoint. We must stand together for the things we know will mean honesty, sincerity, success, and all that is worth while not only to us as manufacturers, for we have no selfish ends in view, but the entire people and the entire interests of the country we all love to the fullest possible extent."

Appreciation of Mr. Howard's Work

MR. J. R. SHAW (Woodstock): I have very great pleasure in seconding Mr. Parson's motion. When we elected you, sir, as our President a year ago we knew well that we were electing a man among men, and that in our new President we would have an officer of whom we could all be proud. I, as an active member of the Canadian Manufacturers Association, sometimes think that the rank and file of our Association do not properly appreciate the vast amount of work that falls upon the executive officers of the Association; not only work, but the time and expense that these officers give to the Association work. Our membership is numerous, as stated, 4,061. So great is the membership and so widely distributed is the membership that of necessity our work must mainly be carried on by committees, the Executive Council, and the Executive Committee. The member of the Association who is actively at work in Association work does appreciate what is being done by the Association, but those members who merely pay their fees, never attend any of the meetings, and are consequently never elected to office, are deriving advantages from that membership which I repeat again I do not think they adequately appreciate.

"It has been my experience again and again to meet manufacturers who are members of the Association, but who know so little about the work of the Association that they are not taking advantage of the benefits that can be realized from the Association. Our various departments are officered by men of the very first rank. As business men we know that you cannot get service without paying for it, and by paying fair salaries we attract to our service men of ability, capacity and industry. Those of us who are merely manufacturers and members of committees and what not, know that were we not backed by this extremely able and efficient staff that the work would not be carried on in the efficient manner in which it is. (Hear, hear.) At the same time, sir, all successful businesses must be headed by captains of great capacity, and in you, sir, during the past year we have had such a captain.

"When you were asked to leave your own business, sir, and go to Washington to work for the country, the Government made no mistake in its selection—(applause)—and we were all proud of you, sir, as our President, and proud of the work that you were able to do for our common country.

"You will, of course, in the order of affairs, lay down your duties of office at this, our annual meeting, and the work will have to be taken up by your successor. We, however, will never forget your kindness and the genial and fair manner in which you have presided over the destinies of the Association during this very trying reconstruction year. It has been a trying year, and it has been trying and hard work for you, sir. We beg to thank you, and in seconding the motion I want to add to Mr. Parsons' resolution, and say that we members of the Association thank you from the bottom of our hearts for the great work that you have done during the past year, and our only hope is that in the years to come we may have Presidents that will prove even half as good as Tom Howard." (Applause.)

Words of appreciation were also expressed by Mr. Thomas Roden, Toronto, and Mr. H. G. Wright, Hamilton, after which the Vice-President, Mr. J. S. McKinnon, put the motion, which was carried with applause.

Name of Division Changed

Amendment to By-laws Changes Name of Pacific to British Columbia Division

Hereafter the Pacific Division of the Association will be known as the British Columbia Division. This change was the only alteration in the by-laws authorized at the annual meeting. The amendment was moved by Mr. Edwin Tomlin, and seconded by Mr. J. H. Macdonald. It was carried without opposition.

From Our Gallery of Excursion Snap Shots



La Bonne Entente

Mr. and Mrs. S. J. B. Rolland, of Montreal, who were honored representatives of the French-Canadian membership



Presidential

A happy picture of a happy couple,—Mr. John S. McKinnon, the new President, and Mrs. McKinnon



Transportation

Messrs. Brown of the C.M.A. and Price of the C.P.R. who looked carefully after the transportation end of the excursion

General Work of the Year is Reviewed

Important Matters That Come Under the Jurisdiction of the Executive Committee are Outlined—Progress of Made-in-Canada Campaign —A Year of Very Widespread Activity in Many Lines is Disclosed

Report of the Executive Committee

DURING the year your Committee had to deal with the problem of financing a rapidly expanding organization; and in such cases experience proves that there is a tendency for expenditures to be greater than receipts. Six hundred and sixty-two new members have joined the Association since the last annual meeting, and it was necessary to give them the services of the Association. Moreover, the decision at the last annual meeting to administer the Association through five divisions required additional expense. Your Committee acted on the assumption that it was the chief duty to provide necessary service. The Association was created to provide service, and only by furnishing service to its members can it remain in existence.

Receipts and Expenditures

The total revenue of the Association for the year amounted to $122,320.85; the cost of operation was $127,099.31; leaving a deficit of $4,778.46. Of the total revenue 43 per cent. was spent on Divisions and Branches, the remaining 57 per cent. on maintaining the special and technical services of the head office.

Industrial Canada

A 25 per cent. increase in printing costs in the early part of the year endangered the usual financial surplus from INDUSTRIAL CANADA, but, in spite of this heavy handicap, the Publishing Committee is able to report a surplus for the year of $8,166.37, as compared with $8,996.62 for the previous year. The editorial features of INDUSTRIAL CANADA have also been improved and enlarged so as to inform the members of the Association's work, and also to provide special articles dealing with industrial problems.

Canadian Trade Index

The *Canadian Trade Index* was published by the Association in March, last. Three features were added in this edition which will be of great convenience to the users of the book; a continuous alphabetical list giving the correct name and address of every manufacturer appearing in the classified section, together with the various lines, branches, export representatives, trade marks, brands, cable addresses and codes of the firms where this information has been available; a French Index of headings with corresponding English headings which appear in classified order in the classified section; and a limited edition with the Spanish Index similarly treated.

Furthermore, over two thousand new headings have been added, many of them descriptive of goods not previously made in Canada. The names of the firms appearing in the Index for the first time number between two and three thousand, making a total of about nine thousand five hundred.

The circulation of the 1920 edition has been greatly enlarged, and will reach over eight thousand five hundred copies. In Canada, besides being supplied to the members of the Canadian Manufacturers Association, it has been placed in the possession of architects, engineers, purchasing agents, boards of trade, industrial commissioners, and Government officials. All Canadian Trade Commissioners abroad have been supplied with copies, and it will be in the hands of banks, officials, trade organizations and British consuls throughout the world.

In spite of the increased cost of publication, increased free circulation and enlarging the size of the *Canadian Trade Index*, your Committee are able to report a small surplus of $166.89, after paying compilation, publishing and distributing costs amounting to $27,447.24.

Made-in-Canada Campaign

INDUSTRIAL CANADA accepts no advertising other than that of Canadian manufacturers. It is, therefore, probably the most sincere exponent of the "Made-in-Canada" doctrine. The *Canadian Trade Index* by listing Canadian manufacturers and their products presents the only complete and official record of manufactures produced in this country. During the past year the Association carried on an extensive "Made-in-Canada" campaign. The co-operation of public bodies and other organizations was solicited, and in most cases secured. A special circular was issued to engineers and architects asking them to specify Canadian material in Canadian contracts; and, conversely, our members were asked to employ Canadian engineers and architects when such a course was possible. Representations were also made to the Government and the various Legislatures urging them to purchase "Made-in-Canada" goods for all Government requirements, and pointing out that such a course was especially desirable in view of the adverse exchange. Various women's organizations have passed resolutions advocating the purchase by women of goods produced in their own country. Exhibitions of "Made-in-Canada" goods were promoted at home and abroad. It is gratifying to report that labor papers gave strong support to the campaign, and advised the purchase of goods made by Canadian workers. Your Committee also desire to express thanks to the press for their efficient co-operation in the campaign.

Federation of British Industries

On recommendation of your Committee the Association has become affiliated with the British Federation of Industries, an organization of British manufacturers in the United Kingdom which corresponds to our own. By this arrangement the British Federation of Industries does certain work for our Association in the United Kingdom, and in return we do certain work for them in Canada. The British Federation of Industries is the largest and most completely organized Association of manufacturers in the world. It has over 17,000 members, who are very carefully classified into groups and sections. There is little doubt that the remarkable recovery of Britain's trade is due largely to the splendid organization and work of the British Federation of Industries.

London, England, Representative

At the last annual meeting a suggestion was made and referred to your Committee that the Association should appoint a representative in London, England. While your Committee concede the desirability of such action, nothing was done owing to the lack of funds.

Resolutions of Last Annual Meeting

The resolutions passed at the last annual meeting were issued in pamphlet form, and distributed widely. A special deputation of manufacturers visited Ottawa on August 5th, 1919, and presented these resolutions to the Prime Minister and other members of the Cabinet. At this meeting special reference was made to the resolution asking for the creation of a Permanent Tariff Board, and to that advocating the extension of Imperial preferential tariffs.

The Alberta Industrial Development Association

The Alberta Industrial Development Association, an organization of the business men of the Province of Alberta, has done considerable work in bringing to the attention of the public the resources of that Province. A congress was held in Alberta last August, and at the request of the Alberta Industrial Development Association the members of the Canadian Manufacturers Association were circularized, asking them to attend. Owing to various circumstances only a small number of members were able to accept the invitation, which was regrettable, in view of the fact that a great number of the important industries of the United States were represented. This year we were able to co-operate to a greater extent with this Association, and have attended their meetings in Medicine Hat, Lethbridge, Calgary and Edmonton en route to the annual general meeting.

Exhibitions

The Trade Sections Department of the Association made a special study of exhibitions last year in the hope of increasing the sale of Canadian-made goods at home and abroad. Reports were made and furnished the membership at large on the following exhibitions:

(*a*) The British Industries Fairs, to be held in London, Birmingham, and Glasgow in 1920.
(*b*) A national exhibition to be held in Pretoria, South Africa, in March and April, 1920.
(*c*) A sample Fair to be held in Brussels, Belgium, in April, 1920.
(*d*) A Canadian exhibition to be held in Agricultural Hall, London, England, 1921.
(*e*) British Empire exhibition to be held in London, England, 1921.
(*f*) A permanent exhibition to be held in London, England, 1921.
(*g*) A floating exhibition to be sent to South American ports.

As for Canadian exhibitions, information was furnished to our members in regard to well-established and familiar exhibitions, and particular attention was drawn to the annual circuit of exhibitions held in the Prairie provinces at the following points: Calgary, Edmonton, Saskatoon, Regina and Brandon.

Trade Commission to China and Japan

An official suggestion was made to your Committee that a Commission, consisting of one representative from each of the Boards of Trade of Vancouver, Winnipeg, Hamilton, Montreal and Toronto, and one representative from the Canadian Manufacturers Association, should visit China and Japan for the purpose of securing information as to the possibility of increasing trade between Canada and those countries. Negotiations were opened with the Boards of Trade mentioned but little support was secured for the proposal, with the result that your Committee have deferred action until some future time, when possibly more interest may be taken in the proposal.

Tour—Maritime Provinces

A meeting of the Executive Council, which was attended by many of the members of Council from western points, was held in St. John, N.B. on October 1st of last year. After the Council meeting a number of members of Council and officials of the Association visited every industrial centre in the Maritime provinces, and attended meetings which had been specially arranged at these points. The result of this tour was very satisfactory from every standpoint, furnishing the opportunity for personal contact with the members in the Maritime provinces and also for adjusting a number of difficulties for local members.

Imperial Press Conference

The Imperial Press Conference will be held this summer in Canada and will be attended by representatives of leading journals from all the countries of the British Empire. The Association is represented on the Organizing Committee, which will arrange their tour in Canada, and advantage has been taken of the opportunity to place before them information and statistics concerning Canadian industry.

Fuel Supply

Your Committee have given considerable attention during the past year to the grave insecurity of the present fuel situation, especially in Central Canada, which is almost entirely dependent on the United States for hard and soft coal. The Committee have determined to discover whether it is possible or not to develop in Canada a supply of fuel of various kinds which will be adequate for the country's needs. A special committee has been appointed to study this problem, but its investigations are not yet completed.

"Made-in-Canada" Train in France

Your Committee considered a proposal forwarded by the Department of Trade and Commerce to arrange for a train loaded with "Made-in-France" goods to tour Canada, and also for a "Made-in-Canada" train to tour France. After securing the views of a number of our members, and also expert advice, it was decided to advise the Minister of Trade and Commerce that the Association approved and welcomed the suggestion that a "Made-in-France" train should tour Canada, but that the Association did not think it feasible to organize a "Made-in-Canada" train for France at the present time.

Postal Act and Newspapers

The attention of your Committee was drawn to a proposed amendment to the Postal Act increasing the rates of second-class postal matter, which includes all publications, and introducing the principle of the zone system, placing a higher postal rate on publications circulating beyond a three hundred mile radius. The increase proposed within a three hundred mile radius was from one-quarter cent to one cent per pound, or four hundred per cent.; and beyond the three-hundred-mile radius from one-quarter cent per pound to two cents per pound, or eight hundred per cent. increase. The Association, on the advice of your Committee, communicated with the Government saying that while it was evident that the Post Office must secure more revenue for carrying second-class matter, any increase in postal rates found necessary should be made on a gradual basis so as not to jeopardize the publishing industry. It was pointed out further that the introduction of the zone system tends to sectionalize publications, which is most undesirable in a sparsely settled country where national publications perform a real service by keeping various sections informed of events and opinions throughout the entire country.

Divisions

Your Committee believe that the action of the last annual general meeting in dividing the Association into five divisions for administrative purposes has been fully justified. By this

arrangement matters which are of interest only to the members resident in a division, are dealt with by the Divisional Executive Committee, and matters which concern the membership at large are referred to the head office.

Divisional organizations have been practically operating for some time in the Maritime provinces, the Prairie provinces and British Columbia; and during the past year the Ontario and Quebec divisions have been operating for some months.

Export Trade

Your Committee had a great deal to do with the Canadian Mission in London and the Canadian Trade Commission in Ottawa, and beg to record their very keen appreciation of the valuable work done by these organizations to increase the export trade of this country.

Under the chairmanship of Mr. Lloyd Harris, the Canadian Mission in London was instrumental in making very large sales of Canadian products in the United Kingdom and other European countries, being aided materially by various credits granted by the Dominion Government.

The Canadian Mission in London has now been replaced by the Overseas Branch of the Department of Trade and Commerce of Canada, under the direction of Mr. W. C. Noxon, who was the chief assistant for the Canadian Mission in London. The Overseas Branch will co-operate with the Canadian Trade Commissioners in Europe and with the High Commissioner in London. There will be this important difference, however. The Overseas Branch of the Department of Trade and Commerce will not make sales or purchases nor negotiate contracts for firms or individuals, but will function largely as an information and publicity bureau for Canada.

It is gratifying to report that the goods marketed abroad for Canadian manufacturers during the existence of the Canadian Mission in London gave very general satisfaction, and, although hundreds of millions of dollars' worth were sold, this Association received only very few complaints. These complaints were promptly investigated in Canada, and in the majority of cases were without foundation.

Industrial Research

Your Committee regret that the Dominion Government has not yet seen fit to establish a bureau of standards. Other manufacturing countres have long established bureaus wherein processes and materials used in industry are studied by experts. Representations have been made at intervals to the Government advocating action on this subject, and representatives of the Association appeared before a special committee of the House of Commons in June, 1919, to give evidence in favor of the establishment of a bureau of industrial research.

The House of Commons re-appointed a Committee to study the question of scientific research in March of this year, and it is most important that some concrete results should be achieved in the near future.

Technical Education

This Association deserves most of the credit for whatever technical education is now provided in Canada. For many years the Association kept up a constant agitation for this particular type of education and was largely responsible for the Royal Commission on Technical Education, which toured America and Europe in 1909-10. The splendid technical schools which are now in existence throughout Canada are due in a great measure to the support and encouragement afforded by members of this Association. The Dominion Government is to be commended for passing the Technical Education Act, which provides the sum of $10,000,000 to be expended on technical education in graduating amounts beginning with $700,000 in 1920, increasing by $100,000 each year till 1924, and reaching $1,100,000 from 1924 till 1929. Allotments cannot exceed the amount spent on technical education by each province during the year. As technical education is a necessary factor for industrial development, it is most desirable that not only the best teachers and schools shall be provided, but also that an efficient research system shall be maintained to keep abreast of industrial progress in other countries.

General Work

In the above report your Committee have only touched upon a few of the more important matters dealt with during the past year. There is not sufficient time at an annual meeting to describe the less important matters and the great amount of detail work accomplished by your Committee, who are practically the Board of Directors for a business which extends all over the Dominion, and covers every subject concerning manufacturing. Those members who serve on divisional and branch committees realize how business local to the division accumulates between meetings. The work of the head office, during this year and last, has been unusually heavy, owing to the new problems caused by the readjustment of the country from war to peace activities. The records show that Council and the various committees and subcommittees held 277 meetings in the head office alone since this time last year. A large number of circulars were issued from the head office in connection with the regular departmental work. In an Association such as ours the technical services of the Association as well as a considerable part of the general work of the Association must be transmitted through the mails by circulars to our members, the majority of whom cannot secure such information by personal interviews. Consequently this is one of the most important features of the Association's work. The following list contains some of the circulars issued from the head office during the past year, and indicates the wide field covered by the departments:

Bill of Lading—Joint Rail and Ocean Form; New Service to Newfoundland; Rates on Iron and Steel Articles; Export Trade—General and Special; S.S. Service to Antwerp; Questionnaire— re industries; Alberta Industrial Development Association; Bankruptcy Act; Coal Shortage; National Industrial Conference; S.S. Service—Canada to South America (West Coast); S.S. Service—Canada to South America (East Coast); Company Licensing Cases; Free Commercial Reports (Foreign); Dominion Fire Prevention Association; Victory Loan, 1919; Revision of the Canadian Customs Tariff; Canadian Atlantic Ports to Scandinavian Ports; Delays to L.C.L. Shipments; United States Government Tax on Freight Charges; Safety—Industrial and General; Canadian Industries Exhibition; Coal and Coke Shortage; "Made-in-Canada" Campaign; Shortage of Power; Group Life Insurance; Closer Trade Relations with the West Indies; "Blue Sky" Laws; Statistics Act, 1918 Census of Industry; Workmen's Compensation Act; Combines and Fair Prices Act; Business Profits War Tax Act; Exhibitions—Home and Abroad; Weighing of Freight Traffic; Treaty of Peace—collection of debts.

The Association has so many vital matters in hand at the present time, and others are coming up to be dealt with, that your Committee believe that next year will be a most important one in the history of our organization and therefore urge members to give the Executive Council and all committees their encouragement and support. All of which is respectfully submitted.

T. P. Howard, *President.*

In reading the report, the General Secretary explained that it had been printed about a week or ten days before the financial report which had been revised in some cases by the auditors.

The motion to adopt the report was moved by the president, seconded by Mr. J. S. McKinnon, the vice-president, and there being no discussion, the motion was put to the meeting and carried.

The Financial Affairs of the Association

Deficit of $4,611 Reported for the Last Fiscal Year—Offset by Surplus of $8,686 Earned by INDUSTRIAL CANADA—Association's Investments Remain Intact With Higher Amortized Value

The Treasurer's Statement

IN calling upon the General Manager to read the Treasurer's Report for 1919-1920, the President said, "I would like to say one word with regard to the Treasurer's report which Mr. Walsh is going to read. Unfortunately, Mr. John F. Ellis, our treasurer, through ill-health, has not been able to attend the convention nor will he be able to again accept office. Mr. Ellis is one of our past presidents and one of, if not, the oldest member in the organization. He joined the Canadian Manufacturers Association in 1878, the year of the famous National Policy, and has been a constant attendant and hard worker and one of the best and finest types of Canadians that has ever been in our Association. (Applause.) In the absence of Mr. Ellis, I will ask Mr. Walsh to read his report.

The General Manager, Mr. J. E. Walsh, then presented and read the financial statement as follows:—

Toronto, May 19, 1920.

The President and Members,
Canadian Manufacturers' Association, Inc.,
Toronto.

Gentlemen,

We have audited the books and accounts of the Association for the year ending 30th April, 1920, and attached hereto please find Balance Sheet, Revenue Account, etc., duly certified to by us. We have verified the Cash and Bank Balances and have examined the Investments, as shown in Schedule E.

Yours faithfully,

WILTON C. EDDIS & SONS.

BALANCE SHEET, 30TH APRIL, 1920.

30th April, 1919.				30th April, 1920.
	LIABILITIES.			
$6,632 20	Accounts payable, Schedule C	$5,365 62		
	Accounts payable—Trade Index	22,932 28		
				$28,297 90
33,539 58	Fees paid in advance	$56,627 82		
674 43	Buyers' Guide and subscriptions to INDUSTRIAL CANADA, paid in advance	731 57		
				57,359 39
	Revenue Account:			
45,168 47	30th April, 1919. By balance	$45,168 47		
	30th April, 1920. To deficit for year	4,611 57		
				40,556 90
$86,014 68				$126,214 19

	ASSETS.		
$9,681 68	Cash on hand and in bank, Schedule D	$22,984 28	
53,700 49	Investments, Schedule E	53,771 86	
974 77	Interest accrued on above	966 77	
$64,356 94			$77,722 91
	Accounts receivable, INDUSTRIAL CANADA	$13,489 20	
	Less reserve for bad debts	1,000 00	
10,105 83		$12,489 20	
	Accounts receivable, Trade Index	23,003 90	
3,687 82	Sundry debtors, Schedule F	3,024 02	
308 75	Members' fees, accrued and due	763 32	
			39,280 44
	Prepaid expenses, rent		710 84
7,555 34	Furniture and fittings		8,500 00
$86,014 68			$126,214 19

Audited and found correct.

WILTON C. EDDIS & SONS,
Chartered Accountants.

REVENUE ACCOUNT.

For Year Ending 30th April, 1920.

To Expenses, Schedule A	$123,226 89	
" Depreciation, furniture	1,001 31	
" National Industrial Conference	2,871 11	
By Membership fees		$110,607 19
" Interest		3,027 29
" INDUSTRIAL CANADA, Schedule B		8,686 37
" Trade Index, 1919		166 89
" Deficit for year carried to Balance Sheet		4,611 57
	$127,099 31	$127,099 31

SCHEDULE A.

EXPENSES.

For Year Ending 30th April, 1920.

Annual Meeting		$874 20
Certificates		99 08
Divisions and Branches—		
British Columbia Division	$7,330 79	
Maritime Provinces Division	4,861 69	
Ontario Division	4,140 21	
Prairie Provinces Division	8,586 60	
Quebec Division	8,713 23	
Hamilton Branch	699 81	
Ottawa Office	14,066 33	
		48,398 66

Departments—		
Commercial Intelligence		7,004 22
Tariff		12,200 55
Transportation		13,974 72
Trade Sections		3,361 92
Exchange		80 09
General Expenses, exclusive of Departments, Divisions and Branches—		
Postage	$1,825 21	
Printing and stationery	3,213 18	
Rent and light	1,659 92	
Salaries	23,104 84	
Telegraph and telephone	682 84	
Travelling	2,063 34	
		32,549 33
Sundries		2,170 30
Translations		Cr. 262 18
General Council Fees		2,767 00
		$123,226 89

SCHEDULE B.

INDUSTRIAL CANADA.

Statement Showing Income and Expenditure for Year Ending 30th April, 1920.

INCOME.

Advertising, display	$57,477 35
Advertising, Buyers' Guide	1,196 58
Sale of copies	335 33
	$59,009 26

EXPENDITURE.

Electros	$744 37
Special literary matter	385 50
Postage and distribution	1,592 39
Printing and stationery	31,332 38
Rent and light	1,100 04
Salaries	15,095 24
Telegraph and telephone	76 46
Travelling	176 50
Sundries	214 68
Bad debts	125 33
	$50,842 89
Profit for year	8,166 37
	$59,009 26
By profit for year brought down	$8,166 37
" 1917 and 1918, provisions for Income Tax reversed	520 00
By balance carried to Revenue Account	$8,686 37

SCHEDULE C.

ACCOUNTS PAYABLE.

Ryerson Press	$2,666 07
Oldfield, Kirby & Gardiner	75 00
Travelling expense	50 00
Bell Telephone	22 70
C.P.R. Telegraph	58 89
G.N.W. Telegraph	53 93
Expense, Prairie Provinces	151 57
" British Columbia	205 50
Toronto Branch Contingent Account	1,756 37
INDUSTRIAL CANADA, received in advance	167 68
Scholarship Fund	25 00
Sundries	132 91
	$5,365 62

SCHEDULE D.

CASH ON HAND AND IN BANK.

Cash—	
Toronto	$225 00
Montreal	200 00
Winnipeg	200 00
Vancouver	225 00
Ottawa	200 00
Advances for travelling expenses	800 00
Royal Bank	21,134 28
	$22,984 28

SCHEDULE F.

SUNDRY DEBTORS.

Shoe Manufacturers' Association of Canada	$357 37
Ontario Shoe Manufacturers' Association	22 23
Canadian Pulp & Paper Association	2,428 16
$2,133.43 repaid May 6th, 1920.	
Tanners' Association	22 37
Willis Faber & Co., rent	98 16
" " " telegraph	1 29
Translations, accounts receivable	92 94
Commercial Reports, accounts receivable	1 50
	$3,024 02

Report is Adopted

MR. J. O. THORN (Winnipeg): "In moving the adoption of the financial statement, I desire to say that Mr. John F. Ellis, our treasurer, has been a tower of strength to our Association and has looked after our interests in every possible way and we exceedingly regret that owing to ill-health he is unable to be with us. I have very great pleasure in moving the adoption of the financial statement."

MR. J. R. SHAW (Woodstock): "I have pleasure in seconding the motion."

There being no discussion, the motion to adopt the financial statement was then put and carried.

SCHEDULE E.

INVESTMENTS.

Due Date.		Rate of Interest.	Yield.	Par Value.	Amortized Value.
1 July, 1944	City of Toronto, £1,000	3½%	4.25%	$4,866 67	$4,314 33
1 Sept., 1920	City of Hamilton	4%	4.22%	4,000 00	3,996 05
1 Jan., 1941	City of Stratford	4½%	4.25%	10,000 00	10,325 08
30 June, 1942	Riordon Pulp & Paper	6%	6.1%	5,000 00	4,958 84
1 July, 1948	City of Toronto, £1,300	4%	4.75%	6,236 66	5,589 71
1 Oct., 1932	City of Brandon	5%	5.1%	10,000 00	9,908 32
1 July, 1925	City of Toronto	4½%	5.4%	5,000 00	4,801 48
1 Dec., 1927	Dominion of Canada War Loan	5½%	5.8%	10,000 00	9,878 05
				$55,103 33	$53,771 86

Labor Matters to the Fore During the Year

More Attention Being Given by the Association to the Subject of Industrial Relations—A Review of the More Important Happenings of the Year, Including the Labor Conferences at Ottawa and Washington

Report of Industrial Relations Committee

As the Industrial Relations Committee was only created at the last General Meeting, this is the first report on the work of this department of the Association.

Origin of the Committee

The department of the Association was created and a committee appointed to supervise it, because the Executive Council felt that the present and future relations between employers and employees in the various lines of industries should be made a subject of the most careful study and investigation, in order to secure the best co-operation among all those engaged in manufacturing.

Although this subject had been dealt with by the Association in a general way from time to time during previous years, the necessity for special study was clearly indicated when the labor sub-committee of the Reconstruction and Development Committee, appointed by the House of Commons, passed a resolution on March 19, 1919, recommending the appointment of a commission to make an exhaustive inquiry on Industrial Relations. Following this recommendation, the Privy Council on April 4, 1919, appointed the Royal Commission on Industrial Relations, under the chairmanship of the Hon. Chief Justice Mathers. This commission commenced its inquiry at Victoria, B.C., April 26th, 1919, and completed its tour in Ottawa, June 12th, of the same year. Between these dates the Commission held 70 sessions in 28 industrial centres, extending from Victoria, B.C., to Sydney, N.S., and took evidence from 486 witnesses.

This Commission consisted of the chairman, two representatives of the public, two representatives of employers, and two representatives of labor. Among other recommendations of this Commission was one suggesting that a National Industrial Conference be convened in Ottawa at an early date. Acting on this recommendation, the Minister of Labor called the "National Industrial Conference" in Ottawa during the week of September 15th-20th. The work of the Industrial Relations Committee in preparation for the National Industrial Conference commenced in the head office of the Association at a general meeting of the Committee on July 30th of last year, and continued until the opening of the Conference. Thirty-eight delegates were appointed by the Association to represent the following industries:

Shipbuilding.
Packing.
Woollens.
Lumber and Timber.
Chemicals and allied products.
Pulp and Paper.
Steel and Iron.
Garment Making.
Printing, Publishing and Bookbinding.
Glass and stone products.
Vehicles.
Milling.
Food Products.
Cottons.
Rubber.
Tobacco.
Oils, Paints and Varnishes, and
Miscellaneous.

There were present at the Conference representatives of the Dominion Government and the Provincial Government, an equal number of delegates representing the interests of employers and employees in all branches of industries, and a third group which appeared on behalf of the public.

The employers' and employees' group together numbered 176. The third group numbered 34, and, in addition to manufacturing, employers were represented in the following industries:—

Lumbering.
Fishing.
Railways and Telegraphs.
Building and Construction.
Wholesale and Retail Trade.
Mining.
Banking.

After various subjects on the agenda had been debated, committees were appointed by the Conference to bring in resolutions on the following subjects:—

1. Industrial disputes legislation and other labor laws.
2. Hours of labor.
3. Minimum wages legislation.
4. Employees' right to organize, the recognition of labor unions, and the employees' right to collective bargaining.
5. The proposed establishment of joint industrial councils
6. State insurance against unemployment, sickness, invalidity and old age.
7. Proportional representation.
8. Other features of the report of the Royal Commission on Industrial Relations.
9. Consideration of any other proposals which may be introduced bearing on the relations of employers and employees.

At the conclusion of the Conference, the following resolutions were submitted by the above mentioned committees, and dealt with in the manner indicated:—

Industrial Labor Laws

That the advantage of uniformity in the laws relating to the welfare of those engaged in industrial work in the several provinces of the Dominion of Canada be brought to the attention of the Government of Canada and of the governments of the several provinces, respectively; and, that this National Industrial Conference suggests the following as a means towards the end desired, namely:

The appointment of a board composed as follows:—

1. As respects the Dominion:

(*a*) A representative of the Government.
(*b*) A representative of the employers.
(*c*) A representative of the employees.

2. As respects each of the Provinces:

(*a*) A representative of the Government.
(*b*) A representative of the employers.
(*c*) A representative of the employees.

And that the Dominion Government be requested to ask the Government of each of the provinces to select or have selected representatives in respect of the provinces as above set forth.

This resolution was adopted unanimously by the Conference.

Proportional Representation

Believing that there are defects in the system of Electoral Representation in Canada, which defects are stated by the Royal Commission on Industrial Relations to be a con-

tributory cause of social and political unrest, this Conference welcomes the declaration of the Prime Minister on behalf of the Government that a Speaker's Conference will be called to investigate the merits of the Proportional System, and urges that such action be taken without delay.

This resolution was adopted unanimously by the Conference.

Joint Industrial Councils

Your Committee is of the opinion that there is urgent necessity for greater co-operation between employer and employees. We believe that this co-operation can be furthered by the establishment of Joint Industrial Councils. Your Committee does not believe that it is wise or expedient to recommend any set plan for such Councils.

We, therefore, recommend that a bureau should be established by the Department of Labor of the Federal Government to gather data and furnish information whenever requested by employers and employees or organizations of employers or employees, and that whenever it is desired to voluntarily establish such councils, the fullest assistance should be given by the bureau.

This resolution was adopted unanimously by the Conference.

State Insurance Against Unemployment, Sickness, Invalidity and Old Age

This Committee unanimously endorses the recommendations of the Royal Commission on Industrial Relations that a Board or Boards be appointed to inquire into the subjects of State Insurance against unemployment, sickness, invalidity and old age.

For the effective carrying out of the above this Committee recommends:—

1st. That such Board or Boards shall be representative of the interests participating in this Conference, viz., the Government, the public, the employer and the employee, and shall include a representative of the women of Canada.

2nd. That in order to collect necessary data, the Government shall forthwith attach to the proper branches of the Labor or other departments concerned experienced investigators, who shall do the necessary research work, and furnish to the Board at the earliest opportunity the results of their investigations.

3rd. That the Government shall set a time limit for the receipt of the report and recommendations as to the advisability of enacting legislation.

4th. While this Committee has been appointed to consider only the questions of state insurance against unemployment, sickness, invalidity and old age; it respectfully recommends that the subject of "widows' pensions" be added.

This resolution was adopted unanimously by the Conference.

Minimum Wage Laws

Whereas it is considered expedient that minimum rates of wage should be fixed throughout Canada for women and children, whether employed at a time rate or according to any other method of remuneration;

Whereas minimum wage laws for women and children have been enacted in five and are now in operation in four of the provinces;

Therefore, be it resolved that this Industrial Conference recommend to the Governments of all those provinces, which have not adopted minimum wage laws for women and children, the speedy investigation of the necessity for such laws and if so found, the enactment of such legislation.

It is further recommended that the various provinces throughout the Dominion adopt a uniform law and method of application, but that in all cases the minimum of wages for women and children is to be determined from time to time, due regard being given to the local living conditions.

It is the opinon of this Conference that the Dominion Government should appoint a Royal Commission, composed equally of representatives of labor, employers, and the public, to investigate wages to unskilled workers, and issue a report.

Representation has been made to the Committee that the remuneration paid female school teachers in one of the larger provinces of the Dominion is so low as to discourage the employment of the talent necessary to the proper education of its citizens. Your Committee recommends that the various Provincial Governments be asked to investigate such conditions in the respective provinces, to the end that the children of all provinces of the Dominion have equal educational opportunities.

This resolution was adopted unanimously by the Conference.

Miscellaneous Resolutions Reported By Committee No. 9.

Land Speculation and Housing.—That this Conference, recognizing that much industrial unrest, economic loss and social suffering has resulted from land speculation, poor and insufficient housing, and high rents, heartily commends the action of the Dominion and Provincial Governments and their united efforts to improve housing conditions, and to provide facilities for the proper and satisfactory housing of our people, and recommends increased co-operation of, and investigation by, the Dominion and Provincial Governments to find a satisfactory solution of the problem.

Equal Opportunities in Education.—That this Conference endorses the recommendation of the Royal Commission on Industrial Relations, as to the necessity of the extension of equal opportunities in education; and, in view of bringing about this reform;

That the Government of each province in Canada be asked to establish compulsory education for full time at least up to and including the fourteenth year, and for part time in cities and towns for the two ensuing years; and

That in all provinces, education in all grades should be made free, so that the child of the poorest paid worker be given the opportunity of reaching the highest educational institutions.

Freedom of Speech and the Press.—That we unanimously endorse paragraph 70 of the report of the Royal Commission, as follows:

(70) The restrictions placed upon the freedom of speech and the liberty of the press, and the denial of the right to read such literature as any portion of the public demanded, was given as one of the principal causes of the present industrial unrest. We have no comment to make upon the policy of the Government in this respect. During the war it was necessary, in the interests of the whole country and of the Empire, that individual liberty should in many directions be restrained, but we believe that restrictions should not be imposed upon either the freedom of speech or the freedom of the press, unless such restrictions are urgently demanded in the interests of the peace of the whole community. We recognize that no person has a right to do anything that is liable to incite the people to commit unlawful acts. A line must be drawn between liberty and license, but care must be taken to avoid creating the impression that the restraints imposed upon the freedom of speech or the liberty of the press, are intended to prevent criticism of legislative or Governmental action.

Employment and Unemployment.—First. That, in the opinion of this Conference adequate provision by public works or otherwise, should be made by the Federal, Provincial and Municipal Governments in connection with all interests represented at this Conference to avert any serious unemployment crisis which might occur during the ensuing eight months;

Second. That the various interests represented at this Conference adhere strictly to the employment policy agreed

upon by the Provincial Governments, which aims at the centralization of labor supply and demand in one agency.

Third. That provision be made for immediate and continuous survey of available and prospective employment, and for adequate employment machinery to direct unemployed workers to employment available.

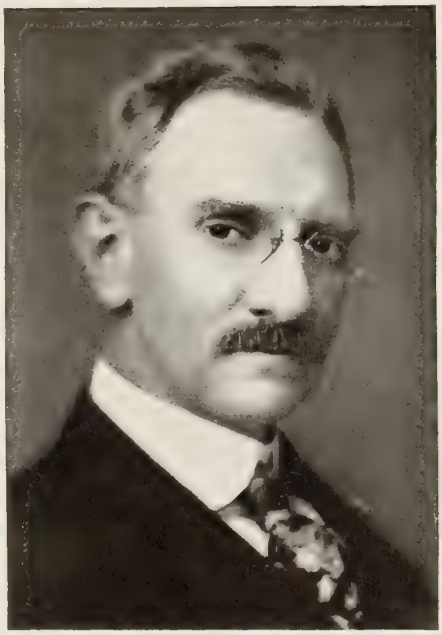
All the resolutions submitted by Committee No. 9 were adopted unanimously by the Conference.

Subjects on which no Agreement was Reached

On the following three subjects of the agenda no agreement was reached, and the resolutions submitted by the various parties were simply recorded in the proceedings of the Conference.

1. Hours of Labor.—(*a*) The following resolution was returned by the delegates of employers:

Resolved that appropriate Government Commission, composed of an equal representation of employers and employees



C. H. Carlisle
Goodyear Tire & Rubber Co., Ltd., Toronto
Chairman, 1919-20 Industrial Relations Committee
Re-elected Chairman, 1920-21

of the various industrial, producing and distributing industries, should be appointed to undertake investigations as to the adaptability of the hours of labor principles of the Peace Treaty to the different industries of the country, and to report as early as possible.

(*b*) The following resolution was returned by the delegates of employees:

That we agree with the recommendations and findings of the Royal Commission on Industrial Relations, and urge the adoption of an eight-hour day by-law throughout the Dominion, with due regard and recognition of the Saturday half-holiday where same prevails, and, if possible, extension.

In industries subjected to seasonal and climatic conditions, such as farming, fishing and logging, if it can be established by investigation that the operation of such a law is impracticable, then exemption shall be granted such industries from the operation of the law.

(*c*) The following resolution was returned by delegates representing the third party:

We approve of the principle regarding employment and hours of labor set forth in the Treaty of Peace, and in paragraphs 50 to 53, inclusive, of the Report of the Royal Commission, and would recommend that the Governments of Canada enact legislation providing for such in all industries where it is now established by agreement, at the earliest opportunity, and, after due investigation by a commission, composed of representatives of employers and employees, representing the various industries, legislation be enacted by the Governments of Canada providing for the same to be extended in all industries where it can be applied, having due regard to the curtailment of production and distribution.

Right of employees to organize; Recognition of labor unions; Collective bargaining.

This was the second subject of disagreement:

(*a*) The following resolution was returned by the representatives of the employers:

(*a*) Employers admit the right of employees to join any lawful organization.

(*b*) Employers should not be required to recognize unions or to establish "closed shops." Employers insist on the right, when so desired, to maintain their plants as "open shops," by which they mean that no employer should discriminate against any employee because of the latter's membership or non-membership in any organization, and no employee should interfere with any other employee because of the latter's membership or non-membership in any organization.

(*c*) Employers should not be required to negotiate, except directly with their own employees or groups of their own employees.

(*b*) The following resolution was returned by the delegates representing the employees:

Your Joint Committee, to whom was referred item No. 4 of the revised agenda, viz.:

Consideration of:

(*a*) Employees' right to organize;
(*b*) Recognition of labor unions, and
(*c*) The right to collective bargaining;

respectfully submit the following report, with recommendations, for your favorable consideration:

(1) With a view to effecting and maintaining harmonious relations between employers and employees, this Conference declares the following principles and policies, and urges their adoption by all employers relative to their respective employees:

(*a*) The right of employees to organize.
(*b*) The recognition of labor unions.
(*c*) The right of employees to collective bargaining.

(2) In these recommendations, without changing the generality of their terms:

(*a*) The right of employees to organize means the right of employees to organize or form themselves into associations for lawful purposes.

(*b*) The recognition of labor unions means the right of employees, or their duly accredited representative or representatives, to recognition of their employer or employers, for the purpose of mutually arranging rules and regulations governing wages and working conditions.

(*c*) "The right of employees to collective bargaining" means the negotiation of agreements between employers or groups of employers and employees or groups of employees, through the representative or representatives chosen by the respective parties themselves.

Entering into agreements and bargaining collectively with an association or union of employees does not mean recognition of the "closed shop" unless the agreement so provides.

(*d*) "Employer" or "employers," as used in clauses 1 and 2 means any employer or employers of any industry, and of Federal, Provincial and Municipal Governments.

(3) That the Federal and Provincial Governments be urged to enact legislation applicable to industries within their respective jurisdiction, to make it unlawful for any employer who shall discharge or refuse to employ, or in any manner discriminate against employees merely by reason of membership in labor unions, or for legitimate labor union activities outside of working hours.

Government Employees

The third subject of disagreement was the recommendation of the Royal Commission on Industrial Relations that

the findings of the Commission be put into effect on all work controlled by the Government when the principles of democratic management can be applied.

(*a*) The following resolution was returned by the delegates representing the employers:

That the undersigned members of your Committee beg leave to report that the matter referred to them does not, in their judgment, come within their province, but that it is entirely a question between the Government and their employees concerned.

(*b*) The following resolution was returned by the delegates representing the employees:

We concur in the recommendations of the Royal Commission on Industrial Relations that the findings of the Commission should be put into effect in all works controlled by all Government bodies where the principle of democratic management can be applied.

We further recommend that employees of all Government bodies should be entitled to the right of appeal under the Industrial Disputes Act, so long as that Act remains upon the Statute of Canada.

We further recommend that the wages and working conditions of employees of Governments should not be less favorable than those which now exist for similar workers in the employment of private individuals or corporations.

(*c*) The following resolution was returned by the representatives of the third group:

The representatives of the third group on this Committee believe that in so far as the findings of this Conference approve, and such findings are to the benefit of the public weal, that the suggestions of the Royal Commission should be put into effect in all departments and works controlled by the Government of this country.

A copy of the complete report of the National Industrial Conference was sent to all members of this Association.

In accordance with the recommendation in the first resolution, a committee was convened at Ottawa on April 26th, 1920, by the Minister of Labor, for the purpose of trying to co-ordinate the labor laws of Canada. This committee, after sitting a week, has adjourned to meet again in September. A summary of the work done appears in the report of the Legislation Committee.

The Conference was held in the Senate Chambers, Ottawa; Parliamentary procedure was followed throughout; the discussion was moderate and reasonable in tone; much valuable information on the subjects at issue was published; and the general result of the Conference was that it tended to steady the industrial situation and to make all classes in the country realize that their common interests lay in the promotion of the national welfare.

International Labor Conference, Washington

The Association was asked by the Minister of Labor to nominate a representative of the employers of Canada and five advisers to attend the first International Labor Conference provided by the Peace Treaty, which was held in Washington, D.C., during the month beginning October 29th, 1919. The Association nominated Mr. S. R. Parsons, past President of the Association, and five advisers, who attended the Conference, with instructions to be guided by the position taken by the employers of Canada at the National Industrial Conference held in Ottawa, September, 1919. The items on the agenda at the Conference were as follows:—

1. Application of the principle of the eight-hour day or forty-eight hour week.
2. Question of preventing or providing against unemployment.
3. Women's employment:
(*a*) Before and after childbirth, including the question of maternity benefit.
(*b*) During the night.
(*c*) In unhealthy processes.
4. Employment of children:
(*a*) Minimum age of employment.
(*b*) During the night.
(*c*) In unhealthy processes.
5. The extension and application of the International Convention, adopted at Berne in 1906, for the prohibition of the use of white phosphorus in the manufacture of matches.

Two representatives of the Government, one representative of the employers, and one representative of the employees, attended the Conference from the following countries: Argentine Republic, Belgium, Canada, Czecho-Slovakia, Denmark, Finland, France, Great Britain, Greece, India, Italy, Japan, Netherlands, Norway, Panama, Peru, Poland, Portugal, Serbe-Croate-Slovens, South Africa, Spain, Sweden, Switzerland, Jugo-Slavia.

The Governments only were represented from Bolivia, Brazil, Chile, China, Colombia, Ecuador, Guatemala, Haiti, Nicaragua, Paraguay, Persia, Salvador, Siam, Uruguay, Santo Domingo, Venezuela.

The Government and employers only were represented from Cuba.

The United States was not represented in any way.

The proposal submitted to the Conference for an 8-hour day and a 48-hour week provide these hours of work in all industrial establishments, but not in commerce or agriculture, nor for transport by sea nor inland waterways. The provisions did not apply to persons holding positions of supervision or management, nor persons employed in a confidential capacity. Hours might be exceeded in case of accident—actual or threatened—or in case of work to be done to machinery or plants. Where, by the nature of the work it must be carried on continuously by a succession of shifts, hours might be lengthened up to, but not exceeding, 56 in the week on the average. Pay for overtime shall not be less than one and one-quarter times the regular rate.

Mr. Parsons, representing the employers of Canada, strongly opposed the establishment of the 8-hour day or 48-hour week by international law, in a speech which made a profound impression on the Conference, the main points of which are summarized as follows:—

"1. While in many industries the eight-hour day is already in operation, especially in the building trades and in manufacturing, where the work is laborious, yet the general application of the shorter working day would, according to actual experience, greatly lessen total production.

"2. At the present time, when the Government of the country is calling upon manufacturers to increase their output and exports in order to meet heavy national obligations, nothing should be done which would tend to hinder them in their efforts.

"3. Only by increased production can the cost of living be reduced to all classes. To ignore this fundamental truth is to blind our eyes to actual facts.

"4. While having regard to world-wide interests, it must be remembered that Canada is a young and undeveloped country. To attempt to put her upon the same footing as old world countries, with entirely different conditions, is like placing a young and vigorous giant on the same footing as a man advanced in life. We should have the opportunity of living our own life and managing our own affairs to suit our circumstances. If we can achieve more than others as a nation it is surely not only our privilege but our duty to do so. Why should our national life and development be dwarfed? Compulsory reduction of hours militates against the establishment of new and small industries, and if the workman is to be hampered in his effort to rise, a serious blow is struck at the national life of a young and rapidly developing country.

"5. An attempt was made in the eight-hour day committee of this Conference to include in the draft convention all purely commercial undertakings, such as wholesale and retail stores, banks, etc. This proposition did not carry a majority in favor of it, but will be considered again at a later conference. It has also been announced that agriculture has already been included in the programme of some countries proposing to come under this legislation. Evidently what is aimed at ultimately is an attempt to drive

all the workers of the world like a flock of sheep into the eight-hour pen, regardless of the world's requirements. It is not suggested for a moment that the general acceptance of the eight-hour day will settle permanently our social and industrial problems, including hours of work.

"6. Under the proposed legislation Governments will be called upon to deal with economic questions to a much greater extent than ever before. It is quite conceivable that influences are likely to be brought to bear upon politicians from one direction or another in connection with such legislation and the administration thereof which would not make for national soundness or prosperity. There is much truth in the statement 'that government is best which governs least.'

"7. Employers of Canada, representing all employing classes, at a national industrial conference in the City of Ottawa in September last, considered this question and agreed unanimously in a resolution calling upon the Government to appoint a commission on which employers and employees should be represented, to study the possible application of the eight-hour day to all branches of industry. If it can be demonstrated, after such study, that the eight-hour day is sound economically as applied to Canada, and in the interest of all classes, including the workers, I feel safe in saying that the manufacturers—and I believe also the employers generally—will be glad to co-operate in bringing it into being. Meantime, I have no option but to oppose the legislation as per draft convention before this conference.

"8. It is generally recognized that unless the United States accepts similar legislation, it would be placing an unfair burden upon Canadian employers, and the country at large, to be bound by the terms of the proposed convention."

The final vote on the eight-hour day resolution was: For, 82; Against, 2 (employers' delegates from Canada and Norway).

Each state ratifying the above convention regarding the hours of work agrees to bring provisions into operation not later than July 1st, 1921. Relaxation as to length of hours as to particular industries, as to the date of application, are made in the case of Japan, British India, Greece and Roumania. The convention does not apply to China, Persia, and Siam, which will be considered at a later conference.

The Draft Convention concerning Unemployment, the provisions of which the states ratifying same agree to bring into operation not later than July 1st, 1921, provides:

1. For the prompt and systematic despatch of statistical information to the International Labor Office by each state ratifying the Convention.
2. The establishment of free public employment agencies, with committees including representatives of employers and workers to advise regarding the manner in which same shall be operated.
3. States which have established systems of Unemployment Insurance shall, upon terms agreed upon between the members concerned, make arrangements whereby workers belonging to one state and working in the territory of another shall be admitted to the same rate of benefits of insurance as those obtained for the workers belonging to the other state.

The states ratifying the "Draft Convention Concerning the Employment of Women Before and After Childbirth" agree to bring its provisions into force not later than July 1st, 1922. The convention applies to industrial or commercial undertakings, except those in which only members of the same family are employed. Employers in industrial undertakings are required to keep registers of all persons under the age of 16 years employed by them, showing dates of birth.

The states ratifying the "Draft Convention Respecting Night Work of Young Persons Employed in Industry" agree to bring the provisions of the Convention into force not later than July 1st, 1922. It provides that young persons under 18 years of age shall not be employed during the night in any industrial undertaking other than one in which only members of the same family are employed, with the exception that those over the age of 16 only may be employed on work which, by reason of the nature of the process, is required to be carried on continuously day and night, in the following industries:

(*a*) Manufacture of Iron and Steel.
(*b*) Glass Work.
(*c*) Manufacture of Paper.
(*d*) Manufacture of Raw Sugar.
(*e*) Gold Refining Reduction Work.

The term "night" signifies a period of at least eleven consecutive hours, including the interval between 10 o'clock in the evening and 5 o'clock in the morning. Provision for the relaxation of the restrictions regarding young persons between the ages of 16 and 18 is made in the case of emergency, and there are also special provisions covering lignite mines, the baking industry, and work in tropical countries.

In addition to the Draft Conventions, the following recommendations were made by the International Labor Conference to the states signatories to the Peace Treaty.

1. That measures be taken to prohibit the establishment of employment agencies which charge fees, and, where such already exist, to permit their operation under Government license only, and that all practical measures be taken to abolish such fee-charging agencies as soon as possible.
2. That the recruiting of bodies of workers in one country, with a view to their employment in another, should be permitted only by mutual agreement and after consultation with employers and workers in each country concerned.
3. That an effective system of unemployment insurance, operated either by the Government direct or through Government subventions, be established.
4. That the execution of all work undertaken by public authority be co-ordinated, with a view to reserving such work as far as possible for periods of unemployment.
5. That reciprocity of treatment, as to the benefit of laws and regulations for the protection of workers and to the right of lawful organization, shall apply to foreign workers the same as to native workers.
6. That arrangements should be made for the disinfection of wool infected with anthrax spores, either in the country exporting such wool, or, if that is not practicable, at the port of entry of the country importing such wool.
7. That, in view of the danger involved to the function of maternity and to the physical development of children, women and young persons under the age of 18 years be excluded from employment in certain lead and zinc processes, and that the employment of women and young persons under 18 in certain other allied lead industries, be permitted only under certain enumerated and well-defined restrictions.
8. That each state, which has not already done so, should establish, as soon as possible, not only a system of efficient factory inspection, but also, in addition thereto, a Government service especially charged with the duty of safeguarding the health of the workers, and which will keep in touch with the International Labor Office.
9. That each state that has not already done so should adhere to the International Convention adopted at Berne in 1906, on the Prohibition of the Use of White Phosphorus in the Manufacture of Matches.

Of the outstanding subjects brought up at the Conference, which did not materialize into either draft conventions or recommendations, the following are worthy of special note, in view of the extraordinary and unreasonable suggestions contained in them.

1. Abolition of private ownership of land.
2. International regulation of distribution of raw material.
3. International regulation of ocean freight rates.
4. The recommendation to all governments of the necessity of adopting suitable legislation in order to establish universal compulsory labor in keeping with individual aptitudes, and within the limitations required by a proper regard for health and human life.
5. In the Committee of Unemploment a determined effort was made to submit a draft convention, providing that, up to the age of 18 years, young workers of both sexes would be required by law to receive a compulsory, professional, complementary, or technical, education of at least 200 hours

From Our Gallery of Excursion Snap Shots



The 2nd Vice-President Goes Riding

Accompanied by Mrs. Shaw and Mrs. Morrison, Mr. John R. Shaw sets out for a trip up the mountains



Excursionists at Lake Louise

In the background, the frozen surface of the Lake; in the foreground, several C.M.A. notabilities

per year, time devoted to such courses to be allowed to such workers off their regular hours, without any decrease in pay therefor. This proposal was vigorously opposed by the employers' group, who compromised on a recommendation to the various states that measures be taken to provide facilities for technical education to all desiring to avail themselves of such. After the compromise recommendation was approved, the sponsors for a draft convention of more extended form, asked that the subject be allowed to drop, and that it should not be brought before the Conference. The subject was, therefore, not brought before the Conference and does not appear in the proceedings.

The length to which certain representatives at the International Labor Conference are prepared to go in the matter of international legislation is indicated by the following subjects which were introduced at various times, but on which no action was taken at this Conference:

1. Introducing of a legal system of exemption from attachment of workmen's wages.
2. Prohibition of the use of the militia in labor conflicts or strikes.
3. Absolution of trade organizations from all responsibility for acts of individuals belonging to such organizations.
4. Legal recognition of trade unions as the only bodies with which to deal on all questions regarding skilled workers.
5. Application of 8-Hour Day to Agriculture.
6. Appointment in each country of a representative of the International Labor Office, to keep in touch with trade unions, and see that the decisions of the International Labor Conference are efficiently carried out.
7. Establishment of pensions for the aged and incapacitated.
8. The reduction of hours below that decided upon by the 1919 International Labor Conference.
9. Provision for a regular annual vacation for all employees.
10. Prohibition of the use of white lead in house-painting operations.
11. Prohibition of the use of mercury in felt hat making.

No action has been taken yet by the Dominion Government towards putting into effect in Canada any resolutions passed at the International Labor Conference.

General Work of the Industrial Relations Committee

Your Committee have made an arrangement with the National Industrial Conference Board of Boston, Mass., to secure the right to republish certain reports obtained by the National Industrial Conference Board at great labor and expense. An example of this kind of report was a special survey made by experts of the Board of the industrial councils existing in the various plants in the United States. A summary of this report was published in INDUSTRIAL CANADA.

Your Committee also beg to report that a considerable number of factories in Canada have established industrial councils. The simplest form, and that which apparently finds the most favor, is a joint committee, consisting of representatives of the management and the employees. This committee is usually divided into sub-committees, which study such subjects as wages, production, hours of labor, conditions of the plant, and suggestions to improve processes of manufacture. Your Committee believe that, in so far as such councils awaken the interests of employees and make them feel that the prosperity of the individual plant adds to their own welfare, they are to be commended.

Your Committee have also secured and circulated such documents as the statements of principles of the United States' employers, Labor Platform of Australian employers, and other documents of a similar nature.

Organization and Work of the Department

Your Committee believe that the Industrial Relations Department can best function by pursuing the type of work outlined in this report. They do not feel that it is the province of this department to interfere in any way with local strikes or disputes. A report, embodying the views of the Committee on these points, has been approved by the Executive Council.

Labor Conditions

Your Committee are convinced that the radical and unreasonable elements of labor have lost a great deal of ground during the past year, and are being discarded by the moderate elements, who realize that they and the employers are mutually concerned in the productive organization of the country, and that their interests can best be served by consultation and co-operation rather than by disagreements and strikes.

All of which is respectfully submitted.

C. H. CARLISLE, *Chairman.*

J. T. STIRRETT, *Secretary.*

J. E. WALSH, *General Manager.*

Report is Adopted

The motion to adopt the report of the Industrial Relations Committee, which was read, in part only, by the General Secretary, was moved by Mr. J. O. Thorn, Winnipeg, and seconded by Mr. H. G. Wright, Hamilton.

MR. J. R. SHAW (Woodstock): "Mr. President, of course this report will be unanimously adopted, but the portions of the report that have been skipped by the Secretary, because they had been previously published, deal in the main with the work that was performed by Mr. Parsons for us at Washington. The thanks of this Association should be extended to Mr. Parsons for going to Washington, and so ably representing us at this great international conference. I only rise for the puprose of calling the attention of those members who may not have been familiar with the situation to this fact. At the international conference at Washington which followed the national conference at Ottawa Mr. Parsons was the representative of the Association, and our nominee. He was appointed by the Government, and was there officially as the representative of Canada. Still, at the same time he was our nominee, and he went there to represent us, and he did it most effectively, and with great credit to the Canadian Manufacturers' Association."

MR. G. W. MCLAUGHLIN (Oshawa): "Mr. Chairman, I would like to add my appreciation. I am very much in accord with the sentiment expressed by the previous speaker, Mr. Shaw, of Woodstock. During those very serious days I followed the events as they transpired at Ottawa, as a Canadian citizen as well as a manufacturer, and I am sure I was highly gratified at the very exalted position, the high moral tone and the breadth of view that was manifested by Mr. Parsons in connection with that very important matter. It seems to me that his handling of it placed it upon a very high stand, and we as members of this Association are under a very considerable debt of gratitude to him for the way in which he dealt with the entire situation, and also to the other members who have made up this report of the Industrial Relations Committee. It has been one of the very important matters that has come before the Association during the past year, and I think we are all very highly pleased with the way in which the different representatives of this Association conducted themselves throughout those entire negotiations, and as a member of the Association, I am in very hearty accord with the remarks made by Mr. Shaw."

Tribute to B.C. Delegates

MR. J. S. MCKINNON (Toronto): "Mr. President, will you permit me to say a few words. The two previous speakers have referred to the splendid work done by Mr. Parsons at Washington. Would you allow me to draw your attention and the attention of the Convention to page one of the report, and to the National Industrial Conference at Ottawa. I would like to bear testimony to the work done by the representatives for British Columbia and the City of Vancouver at the industrial conference held in Ottawa during last September." (Applause.)

The motion was put to the meeting and carried.

THE PRESIDENT: "It was my pleasure, gentlemen, at one of our meetings held in Toronto to acknowledge Mr. Parsons' services. We all felt that something should be done that he would not forget the service he had rendered to the Manufacturers Association. It took the form of an illuminated address which was presented to him, but I do think that this meeting, being in annual convention, should, while in convention, confirm what was done at the Council meeting. It has therefore been moved by Mr. Shaw, seconded by Mr. McLaughlin, that a vote of thanks be passed to Mr. Parsons. I ask your wishes. Those in favor?"

The motion was carried with applause.

THE PRESIDENT: "May I also express to Mr. Thomson our thanks for the work he did with us in Ottawa. I had, will I use the word, the pleasure of attending that Conference, and I can support the remarks Mr. McKinnon has made. To put it very plainly, Mr. Thomson worked like a horse, and a good many others did also."

MR. J. P. THOMPSON (Vancouver): "Mr. Chairman, on behalf of the other delegates who went to Ottawa, may I say that we went there to do our duty—our duty by British Columbia and by the Canadian Manufacturers Association as well as to the other side of the house, and we did it as we thought best in our words and actions."

Mr. Parsons Thanks the Meeting

MR. S. R. PARSONS (Toronto): "Mr. President and gentlemen: I am sure I am deeply grateful for the motion of appreciation which you have passed in regard to the services which to a limited extent, a very limited extent, I was able to perform in connection with the International Labor Conference in the City of Washington last fall. Very much might be said and very much of interest to the members of this Association, especially those who live in the West and who perhaps had not the opportunity of hearing the report which was presented when I returned from Washington. This is not the time, however, for making any extended remarks, and I would simply say to you this, that on a number of leading questions which came up, all the delegates to the Conference were united—matters which concerned the working of women and children, the bettering of the conditions of those who were employed in factories in the different countries of the world, and humanitarian projects, which, of course enlisted our sympathies to the fullest possible extent.

"We could not agree, however, upon the question as to which we disagreed at Ottawa, namely, the eight-hour day. Fortified as I was by the views of the employers at the National Conference at Ottawa, I had, of course, to object to the eight-hour day. Now I am sure, like other employers, I was misunderstood perhaps in regard to this. I may say that in my own plant we have the eight-hour day. We have also working conditions that are very satisfactory on account of the fact that we have in existence a co-operative committee dealing with wages, hours, and conditions of work, and all such matters; we have also a system of bonuses. But what we felt was this, that a universal eight-hour day, considered to-day in the light of the shortage of production the world over, was a thing which would be a calamity coming upon any country, and especially a new country like Canada that should not only produce to satisfy our own interests, but produce for all the world. Therefore I feel sure that in opposing this, as we did, that the employers of Canada generally of course were with us fully and completely.

"I would just like to say another thing, and that is that, while it appeared that we were hopelessly in the minority, as we were, in fighting against the eight-hour day, it should not be forgotten that the United States of America was not officially represented at that Conference; and we all know from the discussions that have taken place in the Senate of the United States that no matter what may be done there—and it is my own view that the United States will yet ratify the Treaty of Peace; I hope this will be the case, and if so there will be reservations which will mean that they are not tied; in fact they have refused absolutely in these reservations which have been brought forward to be tied in matters of immigration, of labor, of traffic in drugs, and all other domestic questions, so that I am persuaded that the United States will be with us in this matter of the eight-hour day. Therefore, while we seemed to be standing alone, we were standing for the United States as well as for Canada."

Insurance Committee's Work for the Year

A Review of Fire Losses for 1919—The Use of Automatic Sprinklers Increasing—Judge Masten's Report Considered—The Group Life Insurance Plan—Objections to the Taxation of Unlicensed Insurance Companies

Report of the Insurance Committee

At the last Annual Meeting your Committee reported that available statistics showed Canada leading the world in fire waste.

Statistics furnished by *The Monetary Times*, Toronto, which has made a careful study of fire waste over a period of years, indicate that in 1918 fire cost Canada 241 lives and about $32,000,000, exclusive of the lives and property lost in forest fires.

In 1919 statistics compiled by the *Monetary Times* show a slight improvement so far as loss of life is concerned, and a decided improvement so far as the loss of property is concerned: 225 lives were lost and $23,000,000 worth of property was destroyed by fire in Canada, exclusive of forest fires.

In 1918 the fire loss of the United States for each person of the population was about $3 per year. For Canada it was nearly $4. For 1919 the United States loss is slightly less than $3, and that for Canada is $2.90. Taken together, United States and Canada still lead the world, and the contrast between the fire waste of the North American Continent and that of Europe is marked. The average annual fire loss of the leading countries of Europe before the war was between 30 and 35 cents per person per annum. Consequently the present fire waste of the North American Continent is about ten times that of the principal nations of Europe before the war. When the enormous loss of life and property through forest fires is added to this total, the total destruction is appalling.

Automatic Sprinklers

Your Committee are gratified to be able to report that the installation of automatic sprinklers is increasing, which your Committee thinks will have a greater effect than any other measure in reducing the loss of life and property through fire. Without going so far as to advocate compulsory installation of sprinklers, your Committee strongly recommend that everything possible be done through education to encourage their use.

During the year your Committee forwarded a suggestion to the Canadian Bankers' Association that banks should loan money as generously as possible to manufacturers for the purpose of installing sprinkler equipment. It was pointed out that such action would be to the benefit of the banks, since the value of the property would be actually increased, and the danger from fire would be reduced to a minimum. The President of the Bankers' Association issued a circular to all banks in Canada, commending our suggestion to the sympathetic consideration of all branch managers. Your Committee was consulted by the Department of Insurance of the Dominion Government in regard to its proposal to establish an inspection service in connection with the Dominion Fire Prevention Association. The Superintendent of Insurance pointed out that in 1918 insurace premiums exceeding $38,000,000 were paid by property-owners to fire insurance companies operating in Canada, which was a very heavy burden to bear. The Department is now sending engineers to survey properties, make recommendations and supply estimates, with a view to lessening the hazard of fire and consequently reducing the insurance rate. This service is offered, without cost, as part of the general campaign of the Government against fire waste, and places no obligation on property-owners taking advantage of it.

Judge Masten's Report on Insurance

Your Committee referred at length at the last Annual Meeting to the report made by the Hon. Mr. Justice Masten, who was commissioned by the previous Ontario Government to inquire into the insurance laws, other than life and marine insurance, of the Province of Ontario. It was reported at that time that his findings justified the representations made by this Association before the Commission. Since the last Annual Meeting the Association has asked the Government of the Province of Ontario to give effect to the findings of this report. In order that the Ontario Superintendent of Insurance may be given a free hand, the Government has decided not to bring down any legislation this year on Judge Masten's report, but the Superintendent has promised to give the representations of the Association, now in his hands, very careful consideration. Although Judge Masten's investigation was limited to the Province of Ontario, it was dealt with at length in the report of the last Annual Meeting, and is referred to again this year because there is no doubt that any law enacted as a result of the Commissioner's findings will influence the insurance legislation of other Provinces.

Your Committee strongly approve of the following recommendations made in the Commissioner's report:

(1) That there should be some form of control by the Province of all rate-making organization, with power to the Superintendent or a specially appointed tribunal to inquire, mediate and report in respect of charges against such rate-making organizations of unfairness or discrimination.

(2) That insurance companies should be required to keep records in such a way as to classify all business transacted so that the profit or loss on each class of risk may exercise an effect on the insurance rate of each class.

(3) That any attempt to interfere with the freedom of unlicensed competition is strongly deprecated, particularly in view of the large measure of control exercised by the Canadian Fire Underwriters' Association. Any tax imposed on the assured in respect of business placed with unlicensed companies would, to a great extent, nullify the advantage of such unlicensed competition.

(4) The appointment of a Board of business men and experts to co-operate with the Fire Marshal and make recommendations which may be given the force of law with respect to building regulations and fire prevention generally.

Group Life Insurance

Your Committee are pleased to report that final action has been taken in regard to group life insurance. Discussion on this subject was opened with the Government in a letter from the Insurance Department of the Association to the Government, dated September 19th, 1917, arising out of requests from several members for information.

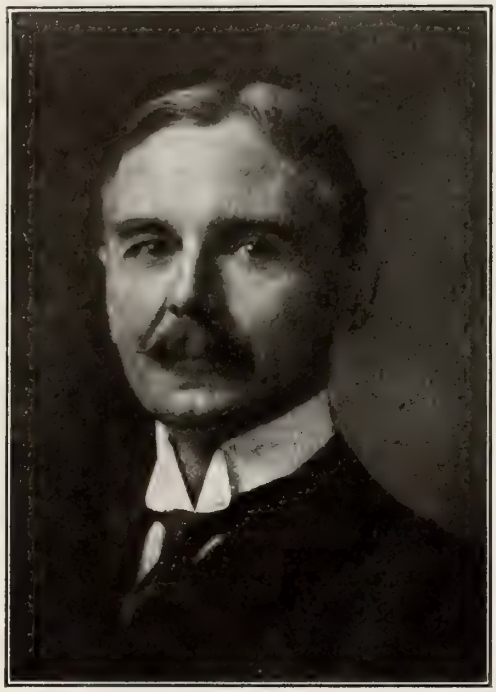
Your Committee continued to investigate the subject and to gather all possible information and statistics relating to it.

On April 24th, 1919, the following resolution of your Committee was approved by the Executive Council:

"That the Insurance Committee proceed to take the necessary steps to have the Insurance Act amended so as to provide more satisfactorily for the transaction of group life insurance in Canada."

In accordance with the above instructions received from Council, your Committee asked the Department of Insurance to provide the necessary facilities for the transaction of industrial group life insurance in Canada.

Your Committee beg to report that the various obstacles and objections to group life insurance have now been removed and that it is possible for life insurance companies



H. W. Fleury
J. Fleury's Sons, Aurora
Chairman, 1919-20, Insurance Committee

to insure groups of employees in this country without examination and at considerably lower rates than have been hitherto available.

Your Committee believe that the only form of insurance which is practicable on the group plan is the one-year renewable term insurance. All other forms are found to be too expensive to be borne by the employers alone. There is no equity under an annual term policy unless its renewal is maintained, which accounts for the low premiums charged. No medical examination is required of the employees, providing that a group of at least fifty is insured. The advantages of group life insurance have been proved in the United States to be very great. It has the effect of doing away with a great many labor troubles, discouraging strikes and generally improving the morale of the employees. An employer of labor can, to a large extent, dictate the terms of the contract. He may insure employees for the amount of their annual wages or for an arbitrary amount. A favorite plan in the United States is to start the insurance at, say, $500 per employee and increase the amount by annual increments, thus providing a reward for continuous service. It is usual not to insure any employee until he has been a certain length of time, say three or six months, in the manufacturer's employment. This has been found to do away to some extent with the problems of casual labor. The rates charged are extremely low, but, of course, increase each year with the age of the individual employees.

Group life insurance is scarcely yet out of the experimental stage. Some of our members who have tried it endorse it strongly; others are doubtful of its benefits, and a few condemn it. The Association has taken the position that, as a number of our members wanted this type of insurance, it should try to provide the facilities for its transaction.

Proposals to Tax Unlicensed Insurance

The Association, on the advice of your Committee, opposed any suggestions or proposals to place a tax on unlicensed insurance, either by the Dominion or Provincial Governments.

The imposition of such a tax would undoubtedly have the effect of eliminating that competition which has proved so beneficial to the interests of the Canadian policy-holders. The imposition of any tax whatever would seriously diminish the value of such competition, which is even now scarcely adequate to enable insurance buyers to obtain equitable rates and conditions.

The value of this competition can hardly be exaggerated It has not only been responsible for the maintenance of reasonable rates, but has been a most important factor in the reduction of Canada's appalling fire waste. It is only by practical encouragement that Canadian property-owners can be brought to eliminate as far as possible the hazards of fire. It would surely be unjust to deprive such property-owners as do adopt efficient fire protection methods of any part of the advantage derived from their care and expenditure.

The amount of revenue which would be derived from a tax on unlicensed insurance would be very small, indeed. It can certainly not be calculated on the volume of insurance now placed abroad, for the simple reason that, with the possible exception of the insurance placed with New England Mutual companies and reciprocal insurance exchanges, the tax would effectually prevent the transaction of insurance with companies not licensed. Still excepting the New England Mutual and reciprocal business, the average reduction from tariff rates obtained by placing insurance abroad cannot greatly exceed 15 per cent. In some cases, such as lumber yards, the reduction obtained from unlicensed Mutual companies is higher, but that is offset by the fact that large amounts of insurance on industrial plants are placed at a much smaller reduction, and, in some cases, the actual tariff rate is paid. Practically the only class of unlicensed insurance which would survive the tax would be that placed in the New England Mutuals, the rate on which is so low that very little revenue, indeed, would be produced. Assuming that insurance to the extent of $160,000,000 (about half the total unlicensed insurance) is placed with New England Mutual companies, a tax of 15 per cent. would yield a revenue of less than $25,000. As already stated, the great bulk of the balance of unlicensed insurance now in existence would be allowed to expire for lack of incentive to seek competition. The result of the tax would, therefore, be the destruction of unlicensed competition, without any adequate competition in the way of revenue. Licensed tariff companies already control eighty per cent. of the total insurance on property in Canada, so that any lessening of competition would result in a virtual monopoly. This would seriously

affect every policy-holder in Canada, since the very existence of the competition benefits alike those who take advantage of it and those who do not.

It is very strongly the opinion of this Association that insurance is not proper subject for taxation. Insurance is not in any sense a commodity. An insurance policy is a contract under which the insurer agrees to pay a financial indemnity in the event of certain conditions arising. The taxes paid by licensed insurance companies cannot be considered as a tax on insurance. Such taxes are very properly imposed for the privilege of carrying on a profitable business and hamper the insurance companies to no greater extent than the taxes paid by other business firms. A tax on unlicensed insurance, however, would be paid by the individual policy-holder. The banks are subject to taxation for the privilege of carrying on a profitable business. Would it not be as reasonable for them to seek legislation imposing a tax on all money borrowed from foreign countries? It must not be lost sight of that, while the transaction of insurance with unlicensed companies involves the sending of considerable sums of money out of Canada in premiums, a great deal returns through the payment of losses. Indeed, some unlicensed companies claim that the transaction of insurance in Canada during a period of years has resulted in a direct loss to themselves.

The Dominion Superintendent of Insurance stated emphatically that the tax in question had been suggested entirely with a view to revenue, and not as a measure of protection for licensed companies, and he added that he fully realized the value of the existence of competition. The great percentage of insurance transacted by the licensed companies proves, of course, that they are not in need of protection, and it is with pleasure that this Association notes the Superintendent's acquiescence in this view. The Association, therefore, need only repeat its earnest conviction that the harm done to the community as a whole through the imposition of a tax on persons taking advantage of the existing competition would very much more than offset the comparatively trifling revenue which such a tax would produce.

Insurance Department Services

Your Committee desire to point out that our Insurance Department, which is managed by Messrs. Willis, Faber & Co., Limited, a well-known firm of insurance brokers, gives varied services to our members in any part of Canada, including the examination of policies, suggestions as to contracts, confidential reports regarding the standing of insurance companies, and general advice on insurance. During the past year the Insurance Department has given service to members on 384 occasions, and has been consulted by about 300 members in all.

The following table shows the various kinds of service given by the Insurance Department and the number of times each kind of service was given:

Examination of policies and policy wordings	87
Rates	95
Automatic sprinkler equipment	18
Standing of companies	23
Inspection of service	63
Construction advice	38
Boiler inspection law	32
General	19
Group life insurance	9
Total	384

All of which is respectfully submitted,

H. W. FLEURY, *Chairman.* J. T. STIRRETT, *General Secretary.*
J. E. WALSH, *General Manager.*

Report is Adopted

In the absence of the chairman of the Insurance Committee, Mr. H. W. Fleury, the foregoing report was read by the general secretary. It was thereupon moved by Mr. Henry Bertram, Dundas, seconded by Mr. C. G. Robson, Edmonton, that the report be adopted. There being no discussion, the motion was put to the meeting and carried unanimously.



A Pacific Coast Lumber Mill

This is a view of the Fraser Mills of the Canadian Western Lumber Co. near New Westminster

Legislation Committee Covers Wide Field

Immense Amount of Legislation, Both Dominion and Provincial, Comes Under Consideration—Divisions Now Handling the Work Pertaining to the Provinces—Details of the Various Measures Introduced in the Legislatures This Year

Report of Legislation Committee

YOUR Legislation Committee has pleasure in submitting its report on the work of the Legal Department for the past year, in the hope that the results secured will prove benoficial.

FEDERAL

Company Licensing Cases

Upon the combined application of a number of Dominion Companies specially interested, His Majesty's Privy Council has granted leave to appeal in the three test cases which were instituted by the Association for the purpose of testing the validity of the company licensing laws of the Provinces of Saskatchewan, Manitoba and Ontario. The three cases have been ordered by their Lordships to be consolidated in one appeal, the effect of which will be to make the cases practically a reference on the whole subject of company licensing, so that it is likely a broad judgment will be obtained determining the questions arising not only on the particular Acts in question but also on the Acts of the other provinces.

In view of the appeal, naturally no serious attempt has been made in any of the provinces to enforce the licensing Acts as against Dominion Companies.

Should the final decision be unfavorable it is the intention of your Legislation Committee to take steps to arrange a conference of executive heads of the various Governments with a view to arrive at a working arrangement, having regard to an equitable division amongst the appropriate Government departments of the fees for incorporating and licensing companies. The vexed question of Dominion and Provincial incorporations might possibly be solved were the Dominion to pay over to the provinces interested the fees which are obtained by the incorporation of companies having head offices in those provinces.

Taxation

One of the problems with which your Committee has been concerned is the constant effort of the Provincial Governments to secure revenue from extra Provincial sources, not only in the case of Company licenses but also in stock transfer taxes, income taxes and other forms of imposts. It is considered good Provincial financing to make outsiders pay, partly of course, because they can offer no effective resistance. Thus Provinces undertake to tax Companies not only on the capital employed in the Province but on their paid-up, or even their authorized capital, regardless of the fact that a portion of it may be used outside the Province. The result of this is that the whole capital of a Company is subject to taxation many times over by different Provinces. It is obvious that such a tax incidence is not only unjust but produces untoward results from an economic standpoint. Incidentally, of course, the Provinces are confined to taxation "within the Province," and it is arguable that this means persons and property in the Province, and that a Province has no power to tax either persons or property outside the Province.

Sooner or later, there will have to be some allocation of, or reciprocity in, the exercise of the powers of taxation as amongst the different Provinces, and perhaps as amongst the different parts of the Empire. Your Committee are hopeful that with the settlement of the questions in the company cases, more progress may be made in the adjustment of the fiscal powers of the Provinces in other branches. This subject will receive the continued careful consideration of your Legislation Committee.

Bankruptcy Act

After discussion in the Canadian Parliament during two sessions and preliminary preparations extending over several years, a Federal Bankruptcy Act was passed in the 1919 session, which may be regarded as a factor in the readjustment incidental to the war. During the course of the Bill, our Legal Department, through our Ottawa office, kept in close touch with the Government and with other public bodies upon the subject, with a view to safeguarding the interests of manufacturers, and we are glad to state that we were able to introduce very important amendments which are incorporated in the Act and which will contribute to the greater protection of creditors, in line with the legislation of other countries.

Amongst these amendments we particularly urged the adoption of provisions for proper accounting by, and discharge of, trustees in bankruptcy, and procured the enactment of effective clauses providing that unclaimed dividends shall be deposited by the trustee with the Receiver-General of Canada, to be afterwards available to creditors entitled thereto, with accrued interest thereon.

The Act provides that a creditor or several creditors together, knowing a debtor to be insolvent and unable to collect his account, and having a claim of $500, may apply to the courts to have the debtor adjudged a bankrupt. The whole circumstances of the case will be passed upon by a judge of one of the courts which have been constituted by the Act, courts of bankruptcy to carry out the provisions of the Act. The court may dismiss the petition of the creditor, may stay the proceedings, or may grant an order, as the circumstances warrant. In the past, when a recalcitrant debtor has refused to make an assignment under the assignments acts, the only course the creditor had was to issue a writ, obtain judgment and issue execution; the result was that every creditor had to follow suit in order to protect his interest and the unfortunate debtor was loaded down with costs, the estate being distributed by the sheriff *pro rata* to those creditors only who had taken action.

The Act also provides for the discharge of an honest debtor who has turned over his assets for the benefit of his creditors, relieving him from a load of debt that he has been unable to pay. Machinery is provided by which a debtor may make application to the court for a discharge from his liabilities; all persons interested in the case may appear before such court, and, after hearing all the evidence, the judge will decide whether the debtor shall receive his discharge, power being vested in the court to refuse the discharge absolutely, or it may suspend for a time the discharge, or it may grant a conditional discharge, say, until the debtor has paid fifty cents on the dollar, or by requiring the debtor to consent to judgment being entered against him for any balance

owing at the date of the discharge, such balance to be paid out of future earnings or after-acquired property. Some of the things that will militate against a debtor obtaining his discharge, are that his assets at the date of the assignment were not of a value equalling fifty cents on the dollar of the unsecured liabilities; that the debtor has omitted to keep proper books of account; that the debtor continued to trade after knowing he was insolvent; that the debtor has failed to account satisfactorily for loss of assets or deficiency of assets to meet his liabilities, or has brought on his bankruptcy by speculation or by unjustifiable extravagance in living, or by gambling, or by culpable neglect of business; that the bankrupt within three months of the assignment has given an undue preference to any of the creditors, or that he has been bankrupt before, or has been guilty of fraud, or fraudulent breach of trust. There will be no difficulty for an honest debtor who has turned over all of his assets to his creditors, to obtain his discharge; the Act is framed to protect such a debtor and to penalize the fraudulent one.

The new Act will become operative on 1st July next, when the old assignment acts of the various provinces will become non-effective.

Meantime, an amending Bill has been introduced in the present session by Mr. S. W. Jacobs, K.C., Montreal, providing: (1) that a trustee must deposit in a separate bank account the proceeds of each estate; (2) for the payment of remuneration to inspectors for services to bankrupt estates, and (3) rescinding the penalties in the original Act against improper petitions in bankruptcy. These amendments were suggested by mercantile and financial interests and present no objectionable features.

Your Legal Secretary on 9th August last, issued a special circular to our members, explanatory of the special features of the new Act.

It is believed that the facilities the new Bankruptcy Act will have secured for the trade of the Dominion in the economical realization of the funds of the bankrupt on a uniform basis through the whole of Canada and their fair and equal application to as great an amount as possible to the payment of his debts will become increasingly appreciated with greater experience of the operation of the Act.

Patents and Copyrights

The amount of invention, improvement and advance in the great variety of industries of a country are proportionate to the encouragement given by the laws of that country. Such laws should be framed to give the greatest possible protection and encouragement to the inventor, while at the same time, not infringing upon the rights of the public. To bring into the world a new idea is to make a step in advance of existing conditions. A step in advance, in any industry, is important, generally to the entire public, both as affecting the particular industry and as an incentive to other advances.

Recognizing these facts, the Minister of Trade and Commerce has introduced a Bill in the present session to amend and consolidate the acts relating to patents of invention. Your Legal Department promptly submitted copies of the Bill to various manufacturers believed to be interested, and took counsel with several Patent Attorneys, who are members of the Association. With the information thus obtained, the Legal Department prepared a brief which was submitted personally by your Legal Secretary to Mr. Geo. F. O'Halloran, K.C., Commissioner of Patents, Ottawa, on 13th ult. After discussion, the Commissioner intimated that the suggested amendments would be adopted. It is believed that when the new Bill is enacted, it will be a great advance on any previous legislation on the subject in Canada.

A Bill has been introduced in the present session by Sir George Foster to establish a uniform period of copyright protection. It further extends copyright protection to gramaphone records, films and lithographs. Protection is also provided for the works of Canadian authors throughout His Majesty's Dominions.

Combines and Fair Prices Act

Pursuant to a recommendation of the committee appointed to inquire into the high cost of living, the Canadian Parliament, in last session, passed an Act creating a Board of Commerce, to consist of three commissioners, each appointed by the Governor in Council for a term of ten years, their whole time to be devoted to the duties of their office. The Board



Sam Harris
Harris Litho. Co., Toronto
Chairman, 1919-20 Legislation Committee

is charged with the general administration of the Combines and Fair Prices Act, 1919, which was enacted to provide machinery for the investigation and restraint of combines, monopolies, trusts, and mergers, and to restrain the enhancement of prices of commodities.

The price-fixing profit-limiting inquisition created by this Act, is a more or less logical development of the war with its call for sacrifice, and its appeal to the people to subject themselves without complaint to the will of a few individuals. Arbitrary interference with the business of the country and with the right of individuals to agree upon price, could only culminate in lessened production and advancing prices.

Doubts having meantime arisen as to the status and powers of the Board of Commerce, the Board submitted a stated case to the Supreme Court of Canada to determine whether in fact Parliament had power to create the Board of Commerce. A copy of the stated case being served on the Association and other representative bodies, your Legal Department instructed Mr. W. N. Tilley, K.C., as Special Counsel, to represent the Association on the argument. The

Supreme Court of Canada adjourned on 25th March without handing down judgment and it is understood that the Court desires to hear Counsel again before final judgment is handed down.

Uniformity of Commercial Law

It has long been generally recognized that the independent action of the various Provincial Legislatures has resulted in a diversity of legislation which, especially with regard to commercial law, raises a serious obstacle to commercial intercourse between different parts of the Dominion, and is a source of embarrassment to British and foreign merchants doing business in Canada. In the United States, where a similar but perhaps more complicated situation exists, work of great value has been done for the past twenty-eight years by the National Conference of Commissioners on Uniform States Laws.

The obvious benefits resulting from the meetings of the State Commissioners in the United States suggested the advisability of similar action being taken in Canada, and on the recommendation of the Council of the Canadian Bar Association several of the provinces passed statutes providing for the appointment of commissioners to attend a conference of commissioners from the different provinces for the purpose of promoting uniformity of legislation in the provinces.

The second annual meeting of the Conference took place in Winnipeg on the 26th, 27th, 28th and 29th days of August, 1919, when consideration was given, *inter alia*, to drafts of model statutes relating to the following subjects:

(1) Bulk sales.
(2) Conditional sales.
(3) Fire insurance policies.

These drafts will again be presented for consideration at the next meeting of the Conference, and meantime, the drafts will be considered by all interested parties.

The Conference also considered and adopted the reports of Committees on the following subjects:

(1) Legislation drafting.
(2) Sales of goods and partnership.

The English Sales of Goods Act, 1893, has been adopted in New Brunswick and Prince Edward Island, as a result of the first meeting of the Conference. This statute is now in force in all the Provinces of Canada, except Ontario and Quebec. A Sale of Goods Act founded on the Sale of Goods Act, 1893, has, however, been introduced by Hon. W. E. Raney in the present session of the Ontario Legislature, in connection with which certain practical suggestions were made by your Legal Department and acknowledged by the Attorney-General.

The English Factors Act, 1889, has also been adopted in New Brunswick, and is now in force in six provinces. The adoption of these statutes at the instance of the commissioners of these provinces, is worthy of note, as being the first legislation passed as a direct result of the meeting of the Conference.

Statutes have been passed in some of the provinces providing both for contributions by the provinces toward the general expenses of the Conference and for payment by the respective provinces of the travelling and other expenses of their own Commissioners who receive no remuneration for their services. It is hoped that similar statutes will be passed by the other provinces.

It should be stated that the appointment of commissioners does not bind any province to accept any conclusions arrived at by the Conference, and that such uniformity of legislation as may be secured by the labors of the Conference will depend upon the subsequent voluntary acceptance by the Provincial Legislature of the recommendations of the Conference.

Your Legal Department purposes to keep in close touch with the work of this Commission, and it is possible that practical suggestions may be made from time to time which will not only be of assistance to the Commission but of special benefit to the Canadian Manufacturers' Association.

Co-ordination of Labour Laws

At the National Industrial Labour Conference, held in Ottawa, last September, provision was made for the appointment of a committee to investigate the possibility of co-ordinating the labour laws of the various provinces. This committee was constituted as follows: One representative from the employers; one representative from labour; one representative from the general public.

These three formed the Dominion section of the committee. The remainder of the committee was constituted by a similar representation from each of the provinces.

All the various provinces, except Prince Edward Island, which is not industrial, agreed to nominate representatives and participate in the Conference.

The Executive Council nominated Mr. J. G. Merrick, Secretary of the Employers' Association of Toronto, as the representative of the employers on the Dominion Section—the Ontario Division nominating Mr. Sam Harris, Chairman of your Legislation Committee, to act as employers' representative for Ontario on this committee.

The employers were fortunate in their selection of representatives—Mr. Merrick being a lawyer of many years' experience in labour legislation, and Mr. Harris as a manufacturer, having had broad practical experience of industry.

The Committee was informally opened at Ottawa on April 26th, by the Honourable G. D. Robertson, Minister of Labour, who narrated the steps leading to its creation.

It was agreed that the press be excluded from the sessions and that all reports for the press be given out by a committee, representative of the employers and employees. Consideration of unifying labour legislation was taken up in the following order: (*a*) Workmen's Compensation; (*b*) Factory Legislation; (*c*) Regulation of Mines; (*d*) Minimum Wage Legislation. All these questions were first referred to the sub-committees for consideration and report, then considered by the Committee as a whole.

There was a strong disposition on the part of the labour representatives at the commencement of the session to stir up criticism of the British North America Act and the consequent rights of the Dominion and Provinces, and to have the Committee discuss the functions of Government, with a view to making any amendments suggested apply through Dominion Government action instead of Provincial Government action, so that by one enactment, the whole of the country could be covered. The employers' delegates, however, strongly opposed the discussion of constitutional questions, which is the particular province of the law officers of the Crown.

As a special report on the work of this Committee is to be submitted to the Convention by the Chairman of the Legislation Committee, it is unnecessary to refer to the subject here in further detail, except to premise that any effective plan of co-ordinating industrial legislation as between the Dominion and the Provinces will be of vast benefit to all.

PROVINCIAL

The following is a summary of the matters which have more immediately engaged the attention of the Divisional Legislation Sub-committees during the year:

Ontario Division

(*a*) *Workmen's Compensation.*—The year 1919 was the fifth year of operation of the present Act. The returns for

the year, the first after the close of the war, show considerable readjustment but less falling off in the general volume of industry than might have been expected.

Ontario was, with the exception of Quebec, which passed a Workmen's Compensation Act in 1909, the first province to introduce a Workmen's Compensation Act. The other provinces, with the exception of Prince Edward Island and Saskatchewan, were quick to follow the example of Ontario.

The Ontario Workmen's Compensation Act was drafted and recommended for adoption by the Hon. Sir William R. Meredith, C.J.O., Royal Commissioner. It was passed substantially as recommended by him and came into force on 1st January, 1915.

The Canadian Manufacturers' Association, representing 2,100 Ontario industries and employers of labour, employing approximately 400,000 workers, is in favor, as it has been from the outset, of a humane and liberal measure for the compensation of workmen injured by accident, and their dependents.

A comparison of the compensation benefits provided by the Ontario Act with those provided by the Acts of other jurisdictions shows that, with only the possible exception of Manitoba (which is not a manufacturing province) the scale of compensation as provided by the Ontario Act is very much higher than that provided by any other Province or State.

In Ontario compensation is paid during the entire period of disability of the worker, or in case of his death, until the death or remarriage of the widow, while in most of the States the period during which compensation is paid terminates at the end of 300, 400 or 500 weeks. Another respect in which the Ontario Act compares most strikingly with the different American Acts is in the matter of medical service. Under the Ontario Act the Board is enabled at the employers' expense to pay for medical aud surgical aid and hospital and nursing services without limit as to length of time or as to amount. In the United States, on the other hand, while 42 of the 45 States provide medical service, all except five of these 42 limit the amount of the medical service to be furnished by the employer.

Further, the maximum payment provided in Ontario of $21.15 per week (payable if necessary for life) is (except Manitoba) the highest compensation on this continent, the next highest being $20.83, which is provided by the California Act. In all other States, the scale of compensation is much lower than in Ontario and moreover the amount of compensation is limited to a fixed aggregate amount.

The above-mentioned scale of compensation, namely 55 per cent. of the average earnings with a maximum of $2,000, was only decided on after the most exhaustive study and a most patient hearing of both sides of the question extending over three years (1910 to 1913). (See page 15 of Chief Justice Meredith's Final Report.) It is not to be forgotten that though it is five years since this scale was fixed it cannot be said to be out of date in the way that a price fixed five years ago would be. In other words it is a percentage—and a percentage on something which has not stood still, namely wages. If, therefore, the ground for the present demand is the increased cost of living, the answer is that the rise in wages has at least kept pace with the general rise in prices. The effect of this on the working of the Compensation Act is clearly seen in the fact that the amount paid for compensation and medical aid in 1919 was $4,192,859.93, as compared with $3,883,994.84 in 1918 (an increase of $308,865.09), though the total number of cases in 1919 was only 44,280 as compared with 47,848 (a decrease of 3,568) in 1918. This increase in the amount paid, while the number of accidents was reduced, was due to the increased benefits under amendments to the Act and increased wages. A further point in connection with the increasing burden constituted by the provisions of the Act may perhaps be brought out most clearly by quoting a sentence from the final report of Chief Justice Sir William Meredith. (See pages 5 and 6.)

"I agree that the ultimate burden of paying the compensation under such a law as is proposed falls upon the community and that whatever the employer has to pay whether directly by way of compensation or if he insures against his liability by paying insurance premiums, forms part of the cost of that which he produces and is added to the selling price."

Another point which your Committee brought to the attention of the Government was that every improvement in the lot of the urban as compared with the country worker must have the effect of intensifying the tendency, already so well marked, to drift from the country into the town. Unless the Government are prepared to bring the farming industry within the scope of the Act—and there is no logical reason (as Chief Justice Sir William Meredith pointed out in his final report) why it should be left out; they ought not, it was urged, to do anything to increase a drift into the towns, which is literally alarming.

Your Committee, having ascertained that a Bill containing drastic amendments to the Act was to be presented in the present session of the Legislature, several conferences were held between the Committee and the Toronto Branch Executive, who jointly arranged for a deputation to wait upon the Provincial Cabinet on the subject, when the deputation was promised that a copy of the contemplated Bill would be submitted for the consideration of the Committee, before presentation to the House.

Meantime, your Legal Department prepared a brief for the information of the members of the Cabinet, pointing out that a comparison of the compensation benefits provided by the Ontario Act with those provided by the Acts of other jurisdictions, showed that with only the possible exception of Manitoba (which is not a manufacturing province) the scale of compensation as provided by the Ontario Act is very much higher than that provided by any other Province or State.

Some of the more radical proposals of the amending Bill are:

1. An increase from 55 per cent. to 75 per cent. in the compensation rate.
2. A minimum rate of $12.50 per week.
3. Increased allowances for widows and children, viz., from $30 to $40 and from $7.50 to $10.
4. Making all increases applicable for the future to all cases now on the pension list.

These amendments will mean a direct increase of 36.3 per cent. in the present compensation, and will necessitate a great increase in the rate of levy on the industries now in operation, which will be obliged, under the retroactive feature of the Bill, to provide not merely for their own pensions but for the trail of pensions left behind by munition works and other industries which have done business from time to time since 1915, but have now been wound up.

Your Committee offered no opposition to increasing the allowances for widows and children.

We strongly urged that this Act is one for the compensation of the workmen; that is, men who work. It is not an Old Age Pensions Act, neither is it an Unemployment Insurance Act, and it was urged that the proposed changes were conceived to a large extent in the spirit of old age and unemployment insurance measures. However desirable these features might be, the Committee submitted that they should be furnished at the expense of the State in the first instance, and should not be incorporated in a measure

of industrial insurance, which is for the compensation of workmen, injured through accident, during their employment.

But the strongest criticism of the Bill was on the score that it would have the effect of increasing the danger of malingering. Even with the 55 per cent. scale, there is a considerable tendency to malinger, particularly, of course, among the boys and girls and the single men. To increase the scale to 75 per cent. is, obviously to intensify this tendency.

Finally it was urged that, before such far-reaching changes are made, there should be a thorough investigation of, and report on, the actual working of the present Act. A survey of 62 out of some 2,500 cases has already been made by the Board, with the result that it was found, to quote the Board's report for 1919, "there is an opportunity for every disabled worker (provided he is willing to seize it) to earn wages which, with his pension on 55 per cent. basis, will bring his earnings to a parity with what they were at the time of the injury."

No action should be taken, it was urged, until this survey had been extended to cover the entire 2,500 cases.

During the past year, a great deal of work has been done by the manufacturers of the province, with a view to eliminating the hazards of industry and making conditions more safe for the workers.

It is reported by the Accident Prevention Association that the manufacturers have shown a great readiness to comply with any recommendations made by the inspectors, and that in not a single case, during the past year, has there been refusal to carry out the suggestions made.

(*b*) *Assessment Act.*—For the past four or five years the City of Toronto, supported by other municipalities, has been urging a change in the Assessment Act, that would permit municipalities to tax income derived from dividends from industrial and mercantile concerns. Neither in the House nor in the Municipal Committee, however, did the project receive any favor. But, times have changed and the Municipal Committee has now accepted a Bill favored by Toronto, that will make all such dividends subject to municipal taxes.

Your Ontario Legislation Sub-committee, in co-operation with the Canadian Credit Men's Association, strenuously opposed the amendment before the Board of Control, and through your Legal Secretary, instructed Mr. A. C. McMaster, K.C., as Joint Special Counsel, to appear before the Municipal Committee. It was argued that the amendments discriminated against industrial and mercantile concerns and tended to drive capital from the province, but the Municipal Committee of the Legislature was obdurate.

The committee, in thus voting to add substantially to municipal revenue, accepted another proposal that will balance the increase to some extent. Hereafter, if the House endorses the stand taken by the committee, householders will receive exemption upon income up to $2,000. At present the exemption is $1,700 and the non-householders will be exempted up to $1,000 instead of up to $700. The exemption will not end there, however, for another bill to give a further exemption of $200 on each child under eighteen in the householders' family, was approved.

Quebec Division

The work of the Quebec Legislation Sub-committee during the past year has been considerable in volume. Much of the special details of the work, however, fell upon the shoulders of those members whose manufacturing interests were peculiarly affected by legislation which was introduced both before the House at Ottawa and in the Provincial Parliament at Quebec.

Overshadowing all the legislation which contained objectionable clauses, which were brought down in these Houses were the restrictions and demands made upon the manufacturing community by the Board of Commerce. During the year, history-making and celebrated arguments were carried on between this Board and various sections of the manufacturing interests.

The most important of these was perhaps that between the Board of Commerce and the textile manufacturers. This arose out of the issuance of a questionnaire which contained many objectionable clauses and caused the textile industry no little concern all over Canada. The Montreal textile people were particularly active in this matter and were later joined in their efforts by kindred manufacturing interests in the textile trade. The results of the efforts on the whole were satisfactory, but their final culmination is yet to be seen.

The latest work of the committee was that in connection with Bill No. 27, The Food and Drugs Bill, introduced in the House by Hon. N. W. Rowell, K.C., M.P. The results attained by the Montreal manufacturers affected by this bill doubtless crowned all previous efforts during the year, at Ottawa, of this character. They in co-operation with the Ontario manufacturers of similar lines put up a splendid and winning fight, which removed many of the objectionable clauses from the bill entirely, and deleted portions of other clauses not conducive to the welfare of manufacturers of lines affected.

The Quebec Division, through its Legislation Sub-committee, took a great interest in several measures going through the Provincial Parliament, chief among which was the bill introduced by Hon. L. A. David, Provincial Secretary, for the creation of a commission to draft a new civic charter for the City of Montreal. The Division demanded of the Government that it be given a representative on this commission. This the Government, however, refused to do, but gave the Division a fairly satisfactory assurance that the interests of the manufacturers of Montreal would be safeguarded in the drafting of the new proposed charter.

One or two more or less serious matters of difference between members of the Association over contracts, in different parts of Canada, were brought to the attention of the committee of the Quebec Branch, which co-operated with the Legal Department, head office, with a view to effecting settlements, and in every instance such efforts were successful.

Maritime Division

(*a*) *Workmen's Compensation.*—A Bill has been introduced at the Nova Scotia Legislature amending the Workmen's Compensation Act, providing for an increase in the amount of compensation from 55 to 66⅔ per cent., also increases in the pensions payable to the dependents in the case of a death. Representations will be made opposing this general increase.

(*b*) *Nova Scotia Accident Prevention Association.*—The Maritime Division has been successful in promoting an Accident Prevention Association in Nova Scotia, under the provisions of Section 80 of The Workmen's Compensation Act, the constitution of which is considered very favorable from the employers' standpoint and has been approved by the Compensation Board. Unity of executive control is effected by placing the administration under the Divisional Secretary of the Association.

(*c*) *Safety Work.*—"Sections have been organized for the metal trades and the lumbering and woodworking industries. A code of 'Rules and Regulations' for the metal trades was considered and adopted at a recent meeting of the section. This code has since been approved by the Workmen's Compensation Board and is now enforceable on all the industries

in the metal trades. It is anticipated that meetings will be held in the near future in an endeavor to organize 'sections' for the other classes under the Act."

A "field organizer" has been engaged to devote his whole time to visiting all sections of the province, to explain the organization and work of the Association to the individual employers, and in an endeavor to impress them with the necessity for actively co-operating in the prevention of accidents. Success in Accident Prevention Work depends entirely upon the interest displayed by the individual employer. If he is not a real convert as to what can be accomplished, a whole army of inspectors and safety engineers can not attain satisfactory results. In Nova Scotia the first object of our campaign is to interest the individual plant managers. When we get their support we are confident that something tangible can be done.

(*d*) *Minimum Wage for Women.*—An Act has been passed at the present session of the Nova Scotia Legislature providing for the appointment of a board of five members, to establish minimum wages and hours of work for women employed in factories and shops.

(*e*) *Development of Power.*—A Bill is now before the New Brunswick Legislature, which, if passed, will give the Government the right to take over and develop any water power site. There are a number of valuable sites from which power can be obtained, some of which it seems are being held for speculative purposes, and it is anticipated that the passing of the proposed Bill will assist towards the early development of some cheaper power in New Brunswick.

(*f*) *Factories Act.*—A Bill to amend and consolidate the New Brunswick Factories Act has been presented to the House. The chief new feature is that the Workmen's Compensation Board is given authority to make rules and regulations, governing the conditions in the factories, and to take action towards the enforcement of same.

(*g*) *Taxation of Unlicensed Insurance.*—A Bill entitled "An Act Respecting the Taxation of Certain Companies and Associations" has been presented to the New Brunswick Legislature. If the Bill passes as it now reads, certain clauses dealing with the taxation of insurance companies will prohibit the unlicensed insurance companies from doing business within the province. Opposition is now being worked up with the hope that certain amendments will be made.

(*h*) *Programme N.B. Federation of Labour.*—The New Brunswick Federation of Labour presented a very comprehensive programme at the present session of the New Brunswick Legislature. We were fortunate in procuring a copy a few days after it was presented, which afforded the employers the opportunity to prepare and present a brief dealing with the separate items, before any action was taken by the Government. As far as we can ascertain it has not yet been decided just what features may be brought up in the form of Bills for the House to consider.

Pacific Division

Discussion and action by the Legislation Sub-committee of the Pacific Division of the Association has taken place during the past year on the following principal matters, which can be roughly subdivided under the headings of Dominion legislation and Provincial legislation.

(*a*) *Armstrong Bill.*—After due consideration, it was felt that the object of this Bill, viz., the bringing under the jurisdiction of the Railway Commissioners of all inland and coastwise shipping, if attained, would not be in the best interests of industry in this Province. Consequently this division was placed on record as opposed to such legislation, and proper steps were taken to obtain concerted opposition to the Bill from other influential sources in the Province outside of the Association.

(*b*) *Business Profits Tax Act.*—Strong opposition has been expressed by this division to the re-enactment of this Act by the Dominion Government, and efforts to secure a similar expression of views from Boards of Trade in every section of the Province have been entirely successful.

(*c*) *Permanent Tariff Commission.*—This division has concurred in the policy of the Association in endeavoring to secure the appointment of a permanent, expert, non-political tariff board, and has been equally successful as in the matter of the Business Profits Tax Act, in securing expressions of approval of this policy from the majority of the Boards of Trade of the province.

(*d*) *British Columbia Minimum Wage Legislation.*—Certain findings made under the Minimum Wage legislation enacted in this Province in 1918 were found, in operation, to work greatly to the disadvantage of a considerable number of the members, and it is gratifying to be able to report that largely through the persistent efforts of this division important modifications have been made to the regulations governing the employment of women in the general manufacturing industry of the Province; notably in the matter of apprentices, this latter phase of the question being particularly vital to manufacturers in this Province, where the supply of female help is not so plentiful as in other parts of Canada.

(*e*) *Workmen's Compensation.*—The British Columbia Workmen's Compensation Act was amended at the last session of the Provincial Legislature, providing for certain increases in the scale of compensation to dependents of those killed or permanently disabled in industry. Taking into consideration present living conditions, and in view of the fact that the proposed increases would not materially affect the rate of assessment on industry, this division decided not to offer any opposition to the amendment to the Workmen's Compensation Act.

(*f*) *Health Insurance.*—A Commission presided over by the Chairman of the British Columbia Workmen's Compensation Board was appointed by the Provincial Government, and held hearings throughout the Province during the early part of this year for the purpose of securing expressions of opinion as to the desirability and practicability, or otherwise, of enacting legislation providing for Mothers' Pensions, Maternity Insurance, Health Insurance and Public Health Nursing.

In view of the unanimous recommendations of the Industrial Conference on these matters, this division decided to make no official representations before the Provincial Commission. The opinion of the Legislation and Executive Committees of the Division, arrived at after numerous discussions, was expressed in the following terms:

"Whereas the subject matter of Health Insurance as applicable to Canada will be investigated by a board appointed by the Dominion Government in response to request of delegates of National Industrial Conference, held September, 1919;

Therefore, we defer placing ourselves on record either as being opposed or in favour of such legislation until we have been privileged to peruse evidence produced by such investigation, to enable us to give intelligent consideration and expression of opinion on these important questions."

(*g*) *Health Insurance.*—The Legislation Sub-committee gave expression to these views at an interview which was arranged with the Premier of the Province in regard to these matters, and a copy of the foregoing resolution was also placed in the hands of various members of the Legislature.

At the time of writing a Bill is before the British Columbia House providing for Widows' Pensions, and will in all probability be enacted. No legislation on the other points dealt with by the Industrial Conference or the Provincial Commission will be considered this year.

(h) *Amendment to British Columbia Factories Act.*—It having come to the attention of the Legislation Sub-Committee that certain interests proposed to have introduced in the Legislature an amendment to the British Columbia Factories Act reducing the legal working hours in this Province from 48 to 44, the matter was promptly taken in hand and appropriate representations made to the Government as to the views of the manufacturers on the subject and the effect such legislation was likely to have on industry and production in this Province, where the legal hours of labor at the present time are shorter than in other localities with which the British Columbia industries come into direct competition.

As a result of the interview between representatives of this Division and the Government, we are assured that the interests of the manufacturers in this Province will receive first consideration by the Government before the introduction of such legislation as that proposed.

(i) *Proposed Eight-Hour Day in Lumber Industry.*—An Act was introduced in the British Columbia Legislature at the present session making eight hours the maximum working day in all branches of the lumber industry of this Province. Such legislation, if enacted, and particularly that feature of it prohibiting overtime employment, would have had a most serious effect on our members engaged in lumber, pulp and paper, and box manufacturing, and this Division co-operated promptly with other organizations in the Province in the preparation and presentation to the Government of the manufacturers' views in opposition to the bill in question.

It is gratifying to be able to report that the representations made have had the desired effect, the bill having been decisively defeated in the House.

(j) *General.*—From the foregoing it will be seen that the facilities offered through the Association have been exercised chiefly in work of a "preventative" nature, experience having proven that if proper steps are taken to combat, and, where possible, forestall, radical and destructive legislation, introduced in the greater number of cases from selfish motives or through ignorance, the thinking majority may be trusted through the natural development and progress of society to evolve sane and constructive legislation which will be fair to all concerned.

Prairie Division

1. *Alberta.*—The Legislature amended the Workmen's Compensation Act so as to provide benefits equal to those granted in Manitoba to-day. That is 55 per cent. to injured workmen and $20.00 per month to widows and $5.00 per month to children.

2. *Saskatchewan.*—The Saskatchewan Legislature at its recent session passed an Act to create a Bureau of Labor and Industries to gather information and public statistics regarding employment, hours, labor difficulties, labor organization, relations between capital and labor, conditions of employment, resources of Saskatchewan, and industrial development. The bureau will open and maintain employment agencies and administer the Factories Act. The Building Trades Act, the Electrical Workers' Act, Employment Agents' Act, the Mines Act and the Minimum Wage Act of the province.

An amendment was passed to the Factories Act limiting the hours of employment for youths, young girls and women in factories to forty-eight hours per week, and authorizing the Lieutenant-Governor in Council to make regulations for the construction and operation of elevators, hoists and dumb waiters. The amendment also provides that any person under sixteen years of age shall not operate an elevator for the carriage of passengers.

3. *Manitoba.*—A Workmen's Compensation Act has been passed by the Manitoba Legislature providing for the administration of compensation to workmen through a state fund to be collected and administered by a commission. This Act increases the compensation paid to injured workmen from 55 per cent. to 66⅔ per cent. It reduces the waiting period from six to three days. It increases the pensions paid to widows and children from $20.00 and $5.00 per month, respectively, to $30.00 and $7.50 per month. The allowance for funeral expenses is increased from $75.00 to $100.00. This Act will go into force on January 1, 1921.

An amendment to the Electricians' License Act was again introduced, providing for the cancellation of Clause 14, which was included in the original Act at the request of this branch, under which the chief engineer in a factory is empowered to make repairs to plant equipment. Except for this clause, licensed journeymen electricians would have to be brought into the plant to make minor repairs, involving delays in production, with consequent higher costs. The Law Amendments Committee finally stated that it was not the intention to cancel Clause 14.

A Temperance Act Amendment was introduced at the last session, providing for the purchase of alcohol for manufacturing purposes through a Government vendor in quantities not exceeding ten gallons at one time, and restricting the sizes of the packages in which the manufactured product containing alcohol could be marketed. A committee from the branch waited upon the Law Amendments Committee and pointed out that when a similar practice has been invoked in another province manufacturers have to pay 50 per cent. more for their alcohol than it could be obtained for from the distillers. Strong objection was, therefore, taken to purchasing from or through a Government vendor, although the committee expressed its willingness to assist the Chief Inspector administering the Temperance Act, to keep a proper record and check of all alcohol used for manufacturing purposes. It was also shown that the quantity of ten gallons was insufficient and impracticable; that the alcohol was usually purchased from distillers in bond; that the Inspector of the Inland Revenue Department would only release an original package at one time, and that the alcohol was actually mixed with other ingredients under the supervision of the Inland Revenue Inspector. In fact, in some cases, the duty was paid on the product which was manufactured under his supervision. At the suggestion of the Attorney-General, a conference was arranged with the Chief Inspector of the Temperance Act and an amendment was drafted to enable manufacturers to import any quantity of alcohol for manufacturing purposes in bond and secure a permit from the Chief Inspector to store while being used in manufacturing. Restrictions as to the size of the bottles in which toilet articles and flavoring extracts could be put up, namely 2½ ounces, were also cancelled.

The Industrial Conditions Act was passed at the session of 1919, but labor refused to nominate representatives for appointment of the Joint Council of Industry, but with the passage of an amendment at the last session specifically recognizing the right of employers and employees to organize for any lawful purpose, they have done this, and the board has been appointed. It consists of Dr. C. W. Gordon, Messrs. John Stovel, H. B. Lyall, W. B. Simpson and E. Robinson.

The Joint Council has had no applications placed before it as yet. It is felt here that under this amendment, it is desirable that all employers should reach some mutually satisfactory arrangement with their employees under which negotiations between them shall be conducted, and when



With the C.M.A. on Tour

In this picture of what President Howard facetiously described as Walsh, Howard & Co.'s Travelling All-Star Troupe may be observed such well-known figures as R. L. McIntyre, Toronto; F. W. Stewart, Montreal; H. L. Rous, Toronto; T. P. Howard, Montreal; J. S. McKinnon, Toronto; J. E. Walsh and S. R. Parsons, Toronto

this is done the Joint Council of Industry will not likely interfere therewith, providing a majority of the workmen can agree thereto.

Representation in Legislature

Your Legislation Committee feel that some attention might well be given by the Convention to the fact that while manufacturing is, next to agriculture, the great basic industry of Canada, the number of persons either in the Dominion Parliament or the Provincial Legislatures who can in any sense be taken to represent the manufacturing industry is wholly disproportionate to the importance of the industry. Your committee has been particularly impressed with this fact during the last year, when more than once legislation of a most radical and pronounced type has been introduced in the various Houses. It is not to be expected that others will safeguard the interests of manufacturers should the latter fail to look after their own interests.

General Work of the Department

The above comprise some of the more important matters dealt with by your committee.

A large number of matters of lesser importance, legislative and executive, have been the subject of consideration and action.

All the Parliamentary bills, federal and provincial, over 600 in all, also Orders-in-Council, and other technical documents, were examined by the department, some of the subjects being reviewed by the Legal Secretary in INDUSTRIAL CANADA for the information of our members, as well as being the occasion of extensive correspondence with manufacturers and others.

In addition to keeping in touch with legislative activities throughout the Dominion and endeavoring to protect the interest of manufacturers in the broader spheres, the department over which your Committee presides has enjoyed a year of greatly increased activity in advising members in the special branches of commercial law, taxation and other problems, to which it has been devoted. The department is also finding an increased field of activity in advising and co-operating with our other departments, and there is every prospect of a considerable enlargement of the work of the department during the coming year.

The constant co-operation of our Ottawa office in legislative matters during the year has greatly facilitated the work of the Legal Department, and all calls made upon our divisional sub-committees and secretaries have been promptly and efficiently met.

All of which is respectfully submitted.

SAM HARRIS, *Chairman.*

H. MACDONALD, *Legal Secretary.*

J. E. WALSH, *General Manager.*

Discussion of Report

The report of the Legislation Committee was read by the Legal Secretary, Mr. H. MacDonald. It was thereupon moved by Mr. J. A. Reid (Fredericton), seconded by Col. Gartshore (London) that the report be adopted.

MR. THOS. RODEN (Toronto): "Mr. Chairman, I think it is to be regretted that Mr. Sam Harris, the chairman of this committee, is not with us. As evidenced by this report Mr. Harris and his committee have done yeoman service for this Association, and have had the able assistance of Mr. Macdonald as our Legal Secretary. I believe our Association owes a very great debt of gratitude to the chairman of that committee, and the committee and Mr. Macdonald, when we consider the wide activities that have been evidenced by this report, and when we consider the time which it takes to get results. For many years we have advocated uniformity of bankruptcy laws, and they have only just been obtained; we co-operated very earnestly in the Workmen's Compensation Act, and now it is showing evidence of successful operation which will reflect credit not only on manufacturers, but on employees; and while it is difficult sometimes to reconcile the differences that exist between the ambitions of certain elements and the representatives of the employees, it is gratifying to know that the operation of this Act has been so scientifically co-operated in by all the elements in the industrial as well as the employing section in this country. The accident prevention act work has been carried on as the outgrowth of the Workmen's Compensation

Act, and that is of immense benefit not only in preventing accidents, but in developing a more humane spirit in the conduct of business. I believe, sir, we should recognize the importance of this committee and appoint our very best representatives in every locality and in every province to study the legislation that is going through the different Governments, and to see as far as possible that they are made uniform."

MR. R. L. MCINTYRE (Toronto): "Mr. Chairman, I, too, wish to express my appreciation of the services of this committee, and particularly those of the chairman. I want to speak especially of that section of the report which refers to the Compensation Act. I fear that when a new Act on compensation is put into force in any province (I speak of my own experience in Ontario) that employers have, at least in the early stages, taken a wrong viewpoint, and probably, shall I say, a wrong attitude. I feel that that was the case in Ontario. When the Act came into effect we were inclined to simply throw our employees on the Act—those of us who had more accidents than some of the others. That, I fear, was our practice or custom for a time. We have certainly long since learned that was a very great mistake, and I wish to advocate that wherever a compensation act is enacted, we should at once take a greater interest in connection with looking after the injured. May I suggest a system for those industries that are liable to greater accidents, and who have a sufficient number of employees to warrant the system, and that is that special first aid should be inaugurated at once and where it will warrant it.

"Then another feature of the work should be to follow up the injury. Just because there is a Board appointed to look after the employees and administer the Act, that does not, in my opinion, relieve the employer from certain responsibility, and it is a very great advantage to the employer as well as to the employee that that should be followed up. The system we have is that every day our nurse visits every single one who is injured, calls on them every day, and it saves the time of the doctor in attending them. It insures their more speedy recovery and brings them back to work."

MR. S. R. PARSONS (Toronto): "I am sure we would all like to give expression to our appreciation of the splendid report of the Legislation Committee. It sets forth very clearly the enormous amount of work which has been done by this committee, and the chairman and secretary are to be especially congratulated, I think, on the character of their work during the past year. If, gentlemen, we had no other report before us at this annual meeting than this, I am sure you will see it is worth the fees which each individual industry pays to the Association to have this work alone carried on, so important has it been. I feel if in some way we could get all our members to appreciate the splendid work carried on by our Association in the various departments and through the various committees that they would have a much clearer understanding of what the Association does for them individually and collectively.

"There are just two points I would like to call attention to in this report. On page 21 under 'Manitoba' it states: 'A Workmen's Compensation Act has been passed by the Manitoba Legislature providing for the administration of compensation to workmen through a state fund to be collected and administered by a Commission.'

"This, it appears to me, might be misunderstood. It is a state fund in the sense that the state takes care of it, but it is not a state fund in that it comes from the state, because it does not. Therefore, it appears to me it is not properly characterized as a state fund. I think that ought to read 'A state fund to be collected from employers and administered by a Commission.' I would like to suggest that to the Secretary as a change.

"Then on page 22, under the heading 'Representation in Legislature.' I think we will all agree with what is stated there, but at the same time, as an Association, I feel that we all deplore what might be termed class working or class representation or class domination, and we ought, I think, to do everything to discourage this in connection with our legislatures and governments. For, gentlemen, if the time comes when other classes are going to represent themselves rather than represent all the interests of the country involved, then it seems to me that the manufacturers will have to get into the game as well. It would be a deplorable thing, I think, if we should do anything which would mean that it could be said that we have a manufacturers' group in any legislature like perhaps the labor men have, or perhaps like the farmers have. It does not conduce to that orderly and fair development of our country through legislation that we all so much desire, and national unity, the thing we stand for here, there, and everywhere as an Association will never be produced by legislation of the classes; and therefore I feel that while we might give expression to our views, at the same time we should deplore class working and class legislation, and should seek through our Association in all the different provinces in which we work to bring about a state of affairs which would mean that the representatives in our parliaments or legislative assemblies should represent the people generally, and that we have a real democracy in that respect." (Applause.)

MR. C. G. ROBSON (Edmonton): "Referring to page 20 with regard to Alberta, it says, "The Legislature amended the Workmen's Compensation Act so as to provide benefits equal to those granted in Manitoba to-day. That is 55 per cent. to injured workmen, and $20 per month to widows and $5 per month to children." Fifty-five per cent., I think, is quite correct. As I understood it, they formerly were receiving $20 a month and $5 a month for children, and that was increased to $30 and $7.50. There was also eliminated from the Act the maximum of $2,000 under the Compensation Act. I think I am correct in that because I gave considerable study to it at the time."

MR. J. O. THORN (Winnipeg): With reference to the Compensation Act of Manitoba, that Act does not give the employers of that province the right to form under the Act accident prevention associations the same as you have in the Province of Ontario. It may interest you to know active steps have been taken by the Manitoba branch to apply for an amendment to that Act at the next session of the Manitoba Legislature whereby we hope to have incorporated in the Act a section similar to the section in the Ontario Act which would give us the right to form accident prevention associations."

Report is Amended.

THE VICE-PRESIDENT (Mr. McKinnon): "Gentlemen, you have heard this very exhaustive report, and I think we see and appreciate the splendid work Mr. Harris and his committee have done. Would it be the wish of the mover and seconder, Mr. Reid and Col. Gartshore, to have the last paragraph stricken from the report, so as to make it conform more to the ideas presented in the address of the President?"

MR. J. A. REID: "With the consent of my seconder, I would amend the original motion by eliminating this paragraph.

Col. Gartshore gave his consent.

The Vice-President then put the motion as amended, that the report be adopted with the elimination of the paragraph headed, "Representation in Legislature," which, on a vote having been taken, was carried, and the report of the Legislation Committee as amended was declared adopted.

Transportation Affairs Bulk Largely

A Review of the Railway and Ocean Transportation Situation—Problems That Have Come Up For Solution During the Year—Changes That Have Taken Place With Regard to Freight Rates and Classification

Report of the Transportation Committee

DURING the past year your Committee has given close attention to the various transportation questions, and begs to report as follows:

Transportation Situation in General

Railways.—Looking at the financial side of the different railways in Canada shows a rather peculiar situation. The Canadian Pacific Railway, in its Annual Report, shows a surplus of $844,249.00, after payment of fixed charges and the usual preference and common stock dividends. This surplus has been placed in reserve to meet the special taxation imposed by the Dominion Government, which ended in 1919. This surplus, of course, shows a decline from former years, which fact is due principally to increase in operating expenses account of the large wage awards. It might also be well to point out that this surplus represents only a very small percentage of the gross earnings.

The Grand Trunk, in their Annual Report, show a net surplus of £1,141 15s. 1d. This, added to the balance accredited to net revenue account as of 31st December, 1918, makes a total of £49,248 5s. 3d. carried forward to the next year's account.

The Canadian National Railways have a deficit of $33,000,000.00, not including the Grand Trunk Pacific. That road has a deficit of $14,000,000.00, making a total for the Canadian National Railways of $47,000,000.00. The Honorable J. D. Reid, when he presented this matter to the House, did not treat the Grand Trunk Pacific as a portion of the Canadian National Railway System, so the $33,000,000.00 may possibly be the amount to be considered.

In the United States the railway companies were handed back to their private owners on March 1st, 1920, under legislation known as the "Transportation Act, 1920," which, among other things, provided that the carriers should receive a net return equal to 5½ per cent. of the aggregate value, plus not more than one-half of one per cent. of such aggregate value, to make provision for improvements, betterments, or equipment, chargeable to capital account. The railway companies' position in the United States is such that they find, in order to secure this return, they must receive an increase in rates.

The Act above referred to also provides that the Interstate Commerce Commission, in determining the value, may group the carriers. At a hearing in Washington, before the Interstate Commerce Commission, at which the shippers' and railway companies' representatives were present, it was decided to group the carriers into three large groups, known as the Eastern, Southern and Western territories, or comprising approximately what is known as the Official Southern and Western classification territories. The carriers' representatives have since placed before the Interstate Commerce Commission and National Industrial Traffic League, in a general way, how much additional revenue they require in order to secure the return referred to.

The following are the percentages:

Eastern Territory	30.43%
Southern Territory	30.951%
Western Territory	23.91%

In the Eastern territory the carriers have made a request to the Commission for an increase in the class and commodity rates, except on bituminous coal, other than lake cargo and tide water coal, on a percentage basis. On bituminous coal it is proposed to advance the rates from certain basing groups of origin, the same percentage as other freight, the same amount to be added to each related group in cents per ton.

In the Southern territory an advance of 31 per cent. has been asked on class and commodity rates, except coal, coke, cement, plaster, lime, sand, etc., which are to be increased specific amounts per ton.

In Western territory they have requested an increase of 23.91 per cent. on all class and commodity rates. Hearings in regard to this question commence on May 24th at Washington.

Undoubtedly our Canadian railways will follow very closely this proposal for increase in rates in the United States. The National Industrial Traffic League have opposed any advance in switching rates, suggesting the matter should be left entirely to local communities for adjustment. They have also suggested that any proposed increase should take into consideration a realignment of all rates, so as to restore the relationship existing prior to the 25 per cent. increase.

The equipment situation is very acute at the present time, as the carriers have not been buying new equipment, and that which they have has been to a certain extent wearing out, so that there is a shortage of equpiment to handle the traffic, both in the United States and Canada. Steps have been taken by the Canadian lines to offset this condition, the C.P.R. having recently contracted for quite a number of cars, both freight and passenger.

Ocean Carriers.—There is a world-wide shipping programme in progress. Recent figures show that the United Kingdom is building ships at a greater rate than the United States, notwithstanding that the United States in the past few years have built an enormous tonnage. Canada has also made great strides in shipbuilding, and has created a Government-owned and operated merchant marine, which will total by 1921 some sixty odd ships. These activities in shipbuilding should undoubtedly result in the opening up of new trade routes, and a decline in ocean rates. In fact, so far as the latter is concerned, there has already been a decline in certain trade routes.

Car Service

Car Supply.—The question of securing cars, particularly for movements of freight to the United States, became rather critical in the early part of the winter. This was due in part to the fact that the Canadian lines issued instructions that they would not allow their cars loaded to points in the United States on account of the fact that the American lines were retaining all Canadian cars sent to them. This situation was placed before the Canadian Railway Association, who in turn placed it before the Department of Railways and Canals. The matter was also taken up by the Department of Railways and Canals and the Canadian Railway Association with the Railroad Administration at Washington. Reports recently re-

ceived would indicate that this situation is becoming relieved and Canadian cars are beginning to come back in greater numbers than formerly.

Claims

Collection of.—During the year, the Department, among its many other duties, has had to deal with a number of claims for loss, damage and overcharge. The total amount of these claims is $47,213.83. Of this amount $18,357.58 has been collected, $1,996.07 has been declined, and there is still pending $26,860.18. As the members will probably know, these claims are usually those which claimants are unable to collect. It is safe to say, therefore, that the amounts collected were amounts which they might not ordinarily have secured. If these same claims were placed in the hands of a lawyer for collection, it is safe to say the charge would be about 10 per cent. From this it will be seen that this very small part of the services furnished by the Transportation Department is worth a good portion of the expense.

Carriers' Liability for Loss from Cars Loaded on Private Sidings.—The Board of Railway Commissioners and the Superior Court of Montreal have recently rendered decisions affecting the liability of the carrier in regard to carload shipments loaded on private sidings, and sealed with private seals. Your committee has considered this question and instructed the Department to give it careful investigation, with a view of developing further facts, in order that they may be placed before the proper parties. The members who have cases affecting liability, which they intend to place before the courts, should advise the Department, so that the claimant can be supplied with full assistance in dealing with questions of general character.

Special Articles in "Industrial Canada."—The articles which appeared in INDUSTRIAL CANADA, issues of December, January and February, and our Circular calling attention thereto, created considerable interest, and it is hoped that all members will study these articles and follow out the suggestions contained therein. It is believed, if this is done, a good deal of the trouble in collecting claims will be eliminated.

Coal and Coke

Supply and Distribution.—The strike of the coal miners, which commenced early in November, created a very serious condition in connection with the supply of coal, and particularly coke, The Department was not called upon to give very much assistance in connection with the question of coal, as this was being handled chiefly through the various administrations. However, as regards foundry coke, there is no question but that the assistance of the Department was instrumental in having the distribution of this commodity kept out of the control under which coal had been placed.

Contracts of Carriage

Bill of Lading.—The Interstate Commerce Commission in a decision rendered early in 1919, ordered into effect on August 8th, 1919, a new uniform bill of lading for domestic shipments, and a new form for export shipments. Certain non-federal controlled roads secured the postponement of this decision through injunction proceedings in New York District Court. The question has since been referred to the Supreme Court, and a decision may be expected in the near future.

Livestock Contract.—In February, this year, the question of uniform livestock contract for use on Canadian lines was again brought forward by the Board of Railway Commissioners. This question has been before that body for a great numer of years; in fact we have never had a contract based on a thorough consideration of all the facts. It was the desire of the Chief Commissioner to secure full information in regard to this question from the standpoint of present conditions. On the 10th and 11th of February, 1920, hearing was held and this Association represented by the General Manager and Counsel. It is expected that a decision in regard to this question will be published in the near future.

Demurrage

Average Agreement.—The Board of Railway Commissioners recently issued a judgment in connection with the question of average agreement, which was applied for by the Association several years ago. The judgment declines our application on the grounds that a man has no right to any compensation beyond the time actually used in unloading the car. In addition to this, it was also pointed out that the average agreement was discriminatory in that it could only be used by the larger consignees having the facilities to quickly unload cars.

Charge on Private Owned Cars Stored on Railways' Tracks.—Early this year tariffs were issued by the carriers providing a charge of 50c per day to cover storage of private-owned cars on railway companies' tracks. The tariff was so worded as to indicate that these cars would be assessed the amount over and above the regular demurrage charges. The question was placed before the Canadian Freight Association, who immediately issued instructions to withdraw the charge.

Free Time, Export Traffic.—Effective January 1st, 1920, all lines joined in the arrangement at North Atlantic Ports for the establishment of a free-time period, fifteen days, on export traffic and guarantee of the steamship companies to assume demurrage when they were responsible therefor.

Liability for Charges Accruing Due to Strikes in Consignee's Plant.—The labor difficulties at Winnipeg last May resulted in the tying up of a lot of cars on the sidings of consignees, and in the yards of railway companies for a considerable period. The railway companies billed the various consignees with these charges. The question was then taken up and it was agreed by the Canadian Freight Association on behalf of the carriers that the charge would be $1 per car per day, rather than the sliding scale in effect at the time. The contention of the consignees was that they should not be compelled to pay any demurrage, as it was absolutely impossible through no fault of theirs, to unload these cars. The matter was placed before the Board of Railway Commissioners, and they ruled that as the carriers were agreeable to $1 per car per day they were willing to accept that basis.

This question again came under consideration in connection with a case brought up by a member at Welland in the shipbuilding business. The question was submitted to the Board of Railway Commissioners on April 20th, and decision is expected in the near future.

Export Trade

Rates from Maritime Provinces to Montreal.—Members in the Maritime Provinces took up with the Department the question of establishing export rates on commodities moving from that territory to Montreal during the summer period, in order that they might be placed on an equality with members located in Ontario, or on a similar basis to members in Montreal who used the winter ports of St. John and Halifax. The question was given careful consideration, and the railways established several rates. They intimated, however, that they did not wish to establish a general scale, as there did not appear to be at the time very much traffic involved. Assurances were given that where a member can show that they have business in view, the railway company will give every consideration to the establishment of a rate.

Ocean Rates.—In report of the Committee at Toronto last year, the ocean rate situation was spoken of, and it was stated indications were there would be a drop in these rates in the spring of 1920. Late information received on this

subject indicates that this condition is developing in all trade routes, except United Kingdom and Spain. In the English shipping circles it is felt that the highest level of freight rates has been reached, and there is now likely to be a pronounced downward tendency. Very few time charters are being entered into, which is a clear indication of the present situation, and what may be expected for the future.

Steamship Service.—During the year the Canadian Government Merchant Marine have extended their services, and now four boats are in the service between Vancouver and Australia and New Zealand, as well as services to South America, West Indies and United Kingdom. The Elder-Dempster Co. have also inaugurated a service to West African ports. The Canadian Government Merchant Marine are considering the question of opening a service between Pacific Coast ports and West Coast of Mexico, South and Central America.

In connection with the establishment of services from the Pacific Coast to Australia and New Zealand and West Coast of Mexico, etc., the committee appreciates the efforts put forward by Mr. Dalton, Secretary of our British Columbia Division.

Freight Charges

Three Per Cent. Tax in United States.—Early in October, 1919, The Treasury Department of United States Internal Revenue issued decisions in connection with the regulations governing this tax, requiring the filing by shippers in the United States of temporary exemption forms, supplemented by certificate of exportation. Considerable confusion arose in regard to this question, and the matter was eventually taken up with the Treasury Department of Washington by the National Industrial Traffic League, who secured the cancellation of these decisions, allowing the movement of traffic from United States into Canada, provided such traffic was covered by through bill of lading, without the necessity of filing any forms.

Freight Classification

Applications.—A number of applications have been considered by the Department during the past year. The following have been disposed of:

Bumper guards or rails.
Graphite.
Pump jacks.
Tub stands.

while the following are still under consideration:

Boots and shoes—rubber, felt and leather.
Cocoa shells.
Filing cases and supplies.
Gelatine.
Ladders, swings, baking and ironing boards.
Machines, washing, with water motor.
Staples, wire.
Steel vats, cheese.
Trucks, warehouse.

Proposed.—The Canadian Freight Association have only submitted one Supplement during the past year, proposed Supplement 13 to Classification 16. A few items in this Supplement were considered at a meeting in Montreal in January, and certain modifications arranged for members. The Supplement is now before the Board of Railway Commissioners for its approval, and will probably be placed in effect at an early date.

New Classification in United States.—Consolidated Classification No. 1, which combines the various items and ratings contained in the Official, Western and Southern Classifications of the United States, was allowed to take effect on January 1st, 1920. This document, while it still contains different ratings for the different classification territories, is practically uniform as regards the wording of the items, and the conditions regarding packing, etc. The rules in this classification are in practically every case general. That is, they apply all over the United States. It is interesting to note that rule 10, the mixed carload rule, is to a great extent similar to old rule 10 of Official Classification, and allows the shipment in mixed carloads of all traffic at the highest carload rate and highest minimum weight. This is also similar to the rule in effect in Canadian Freight Classification 16, between points in Eastern Canada.

Freight Rates

Class Rates.

(*a*) Between points in United States (Central territory) and points in Eastern Canada:

The Canadian lines have been for some years endeavoring to secure a more scientific basis of class rates applying on business moving from points in the United States, roughly, west of Pittsburg and Buffalo to Chicago and north of the Ohio River to points in Eastern Canada and in the opposite direction. Accordingly, they filed a tariff effective on February 29th, 1920, embodying what they consider an equitable and reasonable readjustment. The effect of this readjustment was to materially advance some points, notably Montreal from Pittsburg, and reduce others, notably rates to points north of Toronto.

(*b*) From Vancouver to points in British Columbia and Prairie Provinces:

A readjustment of these rates has been given careful consideration. It would appear that the judgment of the board in the western rates case conflicts in two sections. In one place it is stated that the rates from Vancouver to points in British Columbia and the Prairie Provinces should be on the same ratio as those rates applicable from Fort William to points in the Prairies and British Columbia. In another section of the same judgment a comparison is submitted, showing the rates which the board desired placed in effect in accordance therewith. These rates, however, are not on the same *ratio* from Vancouver as from Fort William. The question has been given careful consideration, submitted informally to the Board of Railway Commissioners and the railway company, but as yet it has been impossible to satisfactorily dispose of it. Further efforts are being made, however, to secure disposition at an early date.

(*c*) Joint rates between C.P.R., G.T.R., and C.N.R. in Eastern Canada:

The Board of Railway Commissioners issued Order No. ..... requiring the railway companies, effective October 1st, 1919, to publish joint class rates on the basis of one line rates plus certain arbitraries. The railway companies failed to carry out this order, and three days after the effective date applied to the board for postponement and further consideration of this whole question. The board accordingly set the question down for hearing, at which the Association was represented. At that time, the railways intimated that in view of the Grand Trunk being taken over by the Canadian National Railways, this order should not become operative, as the conditions would be materially changed, and might accordingly require a difference of treatment. The board, under date of.....issued Order No....., rescinding its former order. It is stated that this is done for the purpose of clearing the records of the board. The question to be held in abeyance pending some arrangements *re* the Grand Trunk.

Commodity Rates.—Special commodity rates in connection with different commodities were considered by the Depart-

ment during the year. The following list and general idea of the territory covered will show what is involved:

Agricultural implements, eastern to western Canada.
Barytes, Connaught to Toronto and Montreal.
Canned goods from canning centres in Ontario to points east of Montreal.
Ferro Silicon, from Welland, Thorold, Ont., and Shawinigan Falls, Que., to consuming centres in eastern Canada.
Agricultural limestone from Kirkfield, Ont., to various points.
Iron and steel from Selkirk, Man., to points in eastern Canada.
Leather from tanning centres to various warehouses in eastern Canada.
Logs from various points in New Brunswick to Moncton.
Paper from various paper mills to consuming centres in eastern Canada.
Rubber boots and shoes, from eastern Canada to Vancouver.

It might be well to point out, in connection with agricultural implements, that a very material reduction was made in rates from eastern Canada. In fact, the rates were placed on the same basis as those applicable from Chicago.



Burton S. Harris
Massey-Harris Co., Limited, Toronto
Chairman, 1919-20, Transportation Committee
Re-elected Chairman for 1920-21

In regard to the rates on paper, it would be well to point out that this involved a proposal of the railway companies to materially increase the rates on various lines of paper. The question was given careful attention, and the carriers' proposal considerably modified.

Railway Legislation

Canadian National Railway Act.—In the last session at Ottawa, the Government passed the Canadian National Railway Act. This Act was referred to in the report of the Committee last year. One of the clauses in this Act places the Government Lines under the jurisdiction of the Board of Railway Commissioners. However, this cannot become operative until the Governor in Council issues an Order in Council, transferring the management of the Government Lines to the Canadian National Railways. This has not as yet been arranged, so that Canadian Government Railways are not as yet under the jurisdiction of the Board of Railway Commissioners.

Railway Act, 1919.—This Act became effective in July last year, and in some respects improves the power of the Board of Railway Commissioners. These features have already been dealt with and members are fully aware of the changes.

House of Commons Bill No. 3.—This Bill, having for its purpose the placing of water carriers under the jurisdiction of the Board of Railway Commissioners, has been submitted by Mr. Armstrong, member for East Lambton. This is similar in its purpose to that of Bills which have been submitted on numerous occasions in the past few years. The Association has opposed the passage of such a measure, as it would be very detrimental to our members, in that it would remove the only competitive rate situation which we have at the present time.

Special Services and Arrangements Incidental to Transportation

Milling in Transit of Grain.—The proposed increase in the stop-off charge from one to two cents per hundred pounds, referred to in the last report as having been postponed by the Board of Railway Commissioners, is still under suspension. The millers requested that they be allowed to enter their submissions, and counsel was retained for this purpose. Owing to other engagements, however, he was not able to prepare the brief on this question until recently. It is expected that as soon as this brief has been filed with the Board, this whole question will be given immediate consideration by that body.

In eastern Canada, the railway companies, after hearing before the Board of Railway Commissioners, were allowed to place in effect new rules governing the keeping of records, etc., in regard to milling in transit of grain. So far no complaints have been received as to difficulties experienced in keeping of these records.

Refrigerator and Heated Car Service.—By decision recently handed down by the Interstate Commerce Commission, a new tariff, known as "Perishable Protective Tariff No. 1," has been allowed to take effect, with certain modifications from proposals made by the railway companies. The new tariff, in a number of cases, advances the heated car charge.

The heated car service charges in Canada were recently increased by one-half cent per car per mile. This action was taken after full consideration by the Board of Railway Commissioners, and in view of the evidence submitted it was shown that the actual cost of this service in some cases was higher than 1½c. per car per mile.

Dressing, Sawing, Kiln-drying or Sorting Lumber.—The carriers proposed to make considerable changes in the rules and charges governing this service, but after giving the matter full consideration, a meeting was held in July, between carriers and shippers, and the carriers promised to take the matter under further consideration. As yet nothing has been done towards interfering with the rules.

Telegraph and Telephone

Telegraph.—The telegraph companies made an application to the Board of Railway Commissioners for an increase in their tolls. From the figures which they supplied, it would appear they were justified in asking for an increase. As to the amount, however, this question was left with the Board of Railway Commissioners. Certain features in regard to the blanket charge in Ontario and Quebec were elaborated upon. It is expected the Board will rule on this question at an early date.

Telephone.—The telephone companies' application for increase in rates was given consideration by the Board of Railway Commissioners and an increase granted, although somewhat modified from that shown in the application.

Terminal Facilities and Services

Local Switching.—Notwithstanding the statement of the former Chief Commissioner, that the carriers should not change the basis of local switching rates, they were nevertheless allowed to place in effect on November 1st, 1919, new local switching rates, making very radical departures from practice formerly in effect, involving as well a general increase in all the rates. The number of special items which have had to be added to the tariff since that time have proven, beyond a doubt, that the claims made by the shipping public were in accordance with the facts.

Siding Agreements.—Agreements on behalf of the Iona Gypsum Company, Iona, N.S., and Miller Bros., Glen Miller, have been considered during the year. The Department was able to give assistance in connection with the Iona siding in the way of having the work on the siding completed. In connection with the siding at Glen Miller, the question was that of rental, and a very material reduction was secured through the fact that the siding was originally constructed under conditions which did not admit of the higher charge.

Weighing

Track Scale Allowances.—The Board of Railway Commissioners issued a decision in connection with the question of track scale allowances. This matter has been before that body since 1911. At that time the carriers proposed to eliminate all allowances and provide only an allowance of 500 pounds on stakes, etc. These tariffs, however, were postponed, and the Board held numerous hearings, securing considerable information from both the carriers and the shippers. It was admitted by the shippers at the time of the hearing that 800 pounds would possibly cover the maximum in some cases so far as they were concerned, whereas the carriers thought the maximum should not exceed 500 pounds. It is interesting to note that the Order of the Board allows on certain commodities a maximum of 650 pounds. Generally speaking, however, the maximum is 500 pounds. The tariff containing these new allowances has now been published, to take effect on May 25th.

Express

Classification.—The Department was instrumental in assisting certain manufacturers in securing a reduction of one-half class in the rating on incandescent lamps shipped by express.

The express companies have recently suggested that the rating on millinery, and other light and bulky goods, subject to Rule 16 of the Express Classification, be advanced to three times first class. They are now rated first class. The question is under consideration at the present time with the millinery trade.

Increase in Rates.—The Board of Railway Commissioners allowed, effective September 1st, an increase in the merchandise rates covering express traffic, disallowing the application of the express companies for increase in the so-called commodity rates, which apply principally to foodstuffs. In addition to the above, the decision also established an allowance to be made at points where cartage service is not maintained, as well as establishing a basis for the delivery limits. Another feature was the question of stating the rates in tariffs. The Board adopted the proposal of the express companies to arrange the rates in what are known as block tariffs.

It has recently come to the attention of the Department that the express companies contemplate applying to the Board of Railway Commissioners for a further increase in their rates. It is understood they intend to ask for an increase in their commodity rates, which was denied them in their former application. It is claimed that they have not secured anywhere near the amount they expected from the increase allowed by the Board.

BURTON S. HARRIS, *Chairman.*

S. B. BROWN, *Asst. Manager, Trans. Dept.*

J. E. WALSH, *General Manager.*

Adoption of Report

The report of the Transportation Committee was read by the General Manager, Mr. J. E. Walsh. Referring to page 12 of the report, and to the heading "Railway Legislation," Mr. Walsh said: "That, of course, is confined entirely to the old Intercolonial Railway. It was not under the jurisdiction of the Board of Railway Commissioners, although the Government have power under this Act to pass an Order-in-Council, and I think possibly a resolution will be introduced before we adjourn asking that such action be taken. The Canadian National Railway is, however, under the control of the Board of Railway Commissioners."

THE VICE-PRESIDENT: "You have heard this splendid report of the Transportation Committee. It has been moved by Mr. A. Davis (Newmarket), seconded by Mr. A. D. Ganong, St. Stephen, N.B., that this report be adopted. If there is no discussion, gentlemen, I will put the motion"

MR. F. J. CAMPBELL (Windsor Mills): "I don't know if it is in order, but in regard to the scarcity of the car supply, there are times when the railways give instructions for cars to be sent to the West for grain, and I think it is series 101,000 they sent up. We had some of those cars in our yard recently, and wanted to load for Winnipeg, and the railways refused to allow us to load these cars, although they were going to the West for grain. Does not that seem unreasonable? Has any attention ever been called to that, Mr. Walsh?"

MR WALSH: "Cars are usually sent West about July for moving grain."

MR. CAMPBELL: "Shouldn't they be sent loaded if possible?

MR. WALSH: "They are very anxious to get loads if they can. That is one of our difficulties in connection with the moving of coal. They encourage the movement of coal from the head of the lakes in order to get loads for their cars West, but I think the situation is improving very materially in regard to cars."

The Vice-President then put the motion to adopt the report of the Transportation Committee, which, on a vote having been taken, was carried, and the report declared adopted.

The Ontario Cement Co., Limited, Brantford, are dismantling their plant at Blue Lake and moving the equipment to Beachville. They expect to have their mill at the latter point in operation in the early fall.

The Townsley Manufacturing Co., Limited, manufacturers of lightning arresters, ventilators and barn equipment, Brandon, Man., are increasing their capital in order to enlarge their plant, as they are finding it too small for their requirements. They have sold sufficient stock to enable them to start immediately on the enlargement.

Tariff Situation Thoroughly Discussed

Official Records Show That There is Not One Country in the World To-day Making Any Pretension to Industrial Development That is Without a Protective Tariff—Where Canada Stands in Tariff Matters

Report of the Tariff Committee

YOUR Committee submits as a preface to this Annual Report, a summary of the more important tariff legislation in various industrial countries of the world during the past year.

Following the armistice, industrial countries, especially those that had been engaged in the war, took precautions to safeguard their home markets against a deluge of foreign goods, in order that their demobilized soldiers and war workers could secure employment in their own countries.

In the United Kingdom import embargoes that had been in effect during the war were continued and increased, with the result that manufactured goods from other countries were practically barred out of the United Kingdom. Later, this system was relaxed in respect to the products of the British Overseas Dominions entering the United Kingdom; and, recently, the majority of the remaining restrictions were removed. The United Kingdom, notwithstanding statements to the contrary, is not a free trade country. She now applies various protective duties, and has a measure before Parliament designed to prevent dumping, arising from exchange depreciation or other causes. During his budget speech in the House of Commons on April 19th last, the Honorable Austen Chamberlain, Chancellor of the Exchequer, stated that the United Kingdom had raised during the year ending March 31st, 1920, the sum of £149,360,000 from customs duties imposed on goods imported into the United Kingdom. That is, every resident of the United Kingdom paid a customs tariff tax on the average of about $16 last year. In Canada last year the average per capita tariff tax, including the war tariff, now removed, was about $23, or, without the war tariff, about $19.50. Yet, some people describe Great Britain as a free trade country and Canada as a high tariff country.

In other leading European countries protective tariffs were considerably increased. France increased her tariff rates during the past year, on most goods, by amounts varying from ten to three hundred per cent.; and as late as April 28th, 1920, she announced a new and extensive list of prohibited imports. Italy, Switzerland, Austria, Spain, Roumania and the Balkan States have made general increases in their tariffs. Present despatches show that still higher protection is being provided in most of these countries, and especially in France, Italy and Spain.

The most recent example of an increase in tariff protection is afforded by Australia. Previous to the war, Australia had a protective tariff of a moderate type, and imported a great deal of manufactured goods in payment for the exportation of her raw materials; consequently, her manufacturing industries did not reach a high stage of development. The result was that Australia suffered severely during the war because, owing to her isolated position, she could no longer import from Great Britain and those other countries the manufactured goods which she had been in the habit of getting. She is determined that this experience will not be repeated, and that she must build up her own industries. To this end a tariff was introduced on March 24th, 1920, which is highly protective in character.

In South America, all countries have tariffs designed not only for the purpose of producing revenue, but also to provide a reasonable measure of production for home industry. Japan has now in operation a high protective tariff. As for British countries outside the United Kingdom, all have tariffs that are protective in character, with the exception of Eastern countries, such as India and the Strait Settlements, which almost wholly operate under revenue tariffs.

Official records show that there is not one country in the world to-day making any pretentions to industrial development that is without a protective tariff. Further, while the statistics showing the collections under these tariffs are not yet available, your Committee makes a conservative statement of fact in saying that the Canadian customs tariff as it stands to-day is not a high tariff, and that in comparison with tariffs of other countries it is very moderate.

The total value of all free importations into Canada during the fiscal year ended March 31st, 1920, was $370,872,966;

The total value of all dutiable importations into Canada during the same period was $693,643,211;

The total amount of duty collected during the said year was $187,520,613;

Included in the foregoing is the customs war tariff duties, which, for the said year, amounted to a total of $31,369,296;

The average rate of duty, including the war tariff, on all dutiable importations was 27.03 per cent. over the same period;

The average rate of duty on all dutiable importations, less the customs war tariff collections, was 22½ per cent.;

The average rate of duty, including the war tariff, on all importations, free and dutiable, for the same period, was 17.61 per cent.;

The average rate of duty on all importations, free and dutiable, after deducting the customs war tariff collections, was 14.66 per cent.

On the 18th day of May, 1920, the customs war tariff rates were completely removed by Parliament. While the leading industrial countries of the world were increasing their tariffs, Canada reduced her general tariff by 7½ per cent., and her British preferential tariff by 5 per cent. Surely, in view of the world-wide increase of tariffs, the national welfare of Canada requires the remaining safeguards provided by her customs tariff as it now stands.

The reasons that have led other industrial countries enumerated above to maintain or increase the protection afforded by their tariffs to their own countrymen are the same reasons that convince your Committee of the wisdom of maintaining adequate safeguards for Canadian industry, agriculture, industrial workers, business men, and all other classes of the population. Under this policy Canada has grown in the last forty years to be a great industrial country. At the present time over two million Canadians depend directly on the factories of Canada for their living. This

year the value of goods made in Canadian factories will be about four billion dollars. When we include those engaged in businesses and professions which depend entirely or in part upon manufacturing for their welfare, we find that over one-half the population of Canada get their living directly or indirectly from the factories of Canada. When it is considered that eighty per cent. of all the products of Canadian farms is consumed in Canada, it follows that the agricultural population is also vitally concerned in the prosperity of Canadian factories. Agriculture is in the most flourishing condition to-day that it has experienced in its entire history in this country. Statistics, although valuable, are unnecessary to prove this statement. It is a truth beyond dispute, and all citizens of Canada rejoice that it is a truth. It has been argued that our remarkable industrial growth has tended to direct rural population to the cities and towns, but those who advance this argument do not attempt to explain the fact that the same complaint is heard in the British Isles and other countries which have widely varying fiscal systems. In any case, it is more desirable to have Canadians leave the country districts to work in Canadian cities than in United States cities, where they were forced to go in large numbers before the establishment of the National Policy, which was the foundation of our industrial system.

This Dominion's tariff legislation, designed for national development, must be affected by the fact that every great industrial nation to-day throughout the world operates under protective tariffs. Each of these countries fences its borders by protective laws for the purpose of safeguarding the interests of its own industrial workers. With every great trading nation guarding its own commercial interests by protective customs tariffs, it would be impossible for Canadian factories to continue in existence without a tariff which would secure to them a large output for the domestic market. The natural resources left in the world seem to be growing smaller, and Canada has more left than the majority of other countries. Consequently, it seems reasonable that we should try to develop our raw material and carry it to the most advanced stage of manufacture before exporting it, in order to provide work for our own people, and to produce the largest national wealth.

The Fathers of Confederation, for the purpose of developing this Dominion and connecting it more directly with other British countries, sought to consolidate our interests on the lines of trade moving east and west within the Dominion.

Since the beginning of our history, Canadian transportation system has run east and west, forming one of the links connecting this country and other countries of the British Empire. We have invested hundreds of millions in our east and west transportation system; and free trade between this country and the United States would inevitably deflect a great proportion of traffic north and south, to the benefit of United States transportation and a consequent loss to Canadian transportation.

The overwhelming commercial weight of the United States, coupled with our geographical position in relation to that country, must be considered in framing all trade legislation affecting this Dominion's national growth and development. That country, with a population of 110,000,000, buys from this country of 8,000,000 people only about one-half the value of the goods which it sells us. Our exports to the United States and imports from the United States each year since 1907 follow:—

Value of Imports from United States.		Value of Exports to United States.	
Fiscal Year.	Amount.	Fiscal Year.	Amount.
1907 (9 mos.)...	$155,943,029	1907 (9 mos.)...	$79,021,480
1908	210,652,825	1908	113,520,500
1909	180,026,550	1909	92,604,357
1910	223,501,809	1910	113,150,778
1911	284,934,739	1911	119,396,801
1912	356,354,478	1912	120,534,634
1913	441,141,562	1913	167,110,382
1914	410,786,091	1914	200,459,373
1915	428,616,927	1915	215,409,326
1916	398,693,720	1916	320,225,080
1917	677,631,616	1917	486,870,690
1918	791,906,125	1918	441,390,920
1919	746,920,654	1919	477,745,659
1920	802,096,817	1920	464,029,273

Last year each inhabitant of the United States bought $4.21 worth of Canadian goods, while each Canadian bought $102.62 worth of United States goods.

The United States, even under the present customs tariff, which represents the policy of the United States low tariff (Democratic) political party, still highly protects those industries which need such protection as a safeguard for development; and we must not forget that even those manufactured articles which now enter the United States free of duty will probably be protected if the Republican party is returned to power. Thus, no Canadian industry can afford to make investments based on the possibility of access to the United States markets. All investments of Canadian industries must be made primarily with the view to east and west trade within the Dominion, and to export trade with other British Dominions which favor British products with tariff preferences. It is the Canadian tariff which has caused large numbers of United States industries to establish branch factories in this country; and these branch factories now number over six hundred and employ over 87,000 Canadian people.

The policy of this Association to-day is what it always has been, viz.: There should be a Canadian customs tariff adequate to conserve and develop our natural resources, to encourage the exportation of our raw materials in the most advanced stages of manufacture, to attract immigration, to safeguard present industries and investments, to encourage the establishment of new industries, to provide employment for the Canadian people, and to continue the development of Canada as a great country within the British Empire.

Tariff Revision

The Canadian customs tariff was revised last in 1906-7. During thirteen years of great industrial development, including the war period, many inequalities crept in which should be removed. It must be remembered, too, that manufacturers are heavy importers of such articles as materials, equipment and machinery which are subject to revenue duties, and consequently pay a great portion of the total duties collected. As it has been the custom of Governments to revise the tariff every ten years, our tariff revision is more than three years overdue, and the tariff should be revised as soon as international industrial conditions approach reasonable stability.

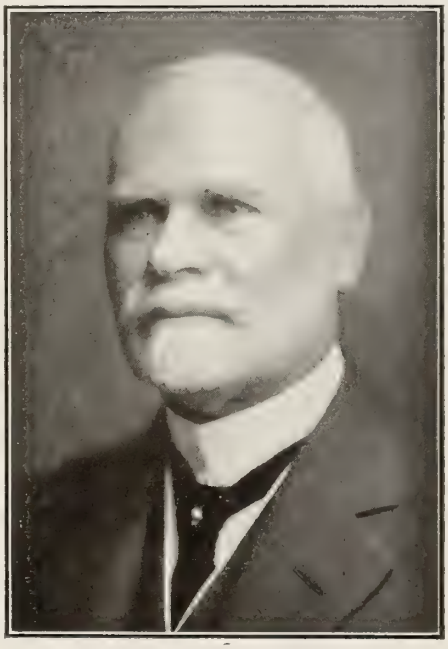
In regard to tariff revision, the Association recorded its position in the following resolution passed at the last annual general meeting:

"Whereas, demands are made at frequent intervals by various sections of the Canadian people for radical changes in the Canadian customs tariff, and

"Whereas, such demands prevent the determination of the settled policy that is necessary for the development of industry and trade, and cause depression in business, unemployment, and imperial invested capital, and

"Whereas, it is of vital importance that all industry should have reasonable assurance of stable conditions which will not be adversely and suddenly disturbed by unexpected and imperfectly considered tariff legislation;

"Therefore, be it resolved, that the Canadian Manufacturers Association in annual meeting assembled in Toronto, on June 12th, 1919, respectfully urge the Dominion Government to appoint a permanent tariff board, acting in an advisory capacity to the Government, which will make a scientific study of the Canadian customs tariff and the tariffs of other countries with whose products Canadian producers are forced to compete, familiarize itself with costs of production at home and abroad, investigate the nature and probable national effect of all requests for tariff changes, and endeavor to frame a tariff that will serve the best interest of Canada, and thus assure the harmonious and all-round development of the country."



Hon. E. J. Davis
Davis Leather Co., Limited, Newmarket
Chairman, 1919-20, Tariff Committee

Your Committee submits that this is a reasonable attitude to take in regard to the proposed revision in the interests of all concerned.

Proposed Tariff Changes

Although the Association is a non-political body and includes within its membership manufacturers of various political parties, your Commttiee feel it their duty to draw attention, as a matter of information, to the following official tariff policies which have been declared by the organizations indicated—

(1) By the Canadian Council of Agriculture:

"Therefore be it resolved that the Canadian Council of Agriculture, representing the organized farmers of Canada. urges that, as a means of remedying these evils and bringing about much needed social and economical reforms, our tariff laws should be amended as follows:

(*a*) By an immediate and substantial all-round tariff reduction of the customs tariff.

(*b*) By reducing the customs duty on goods imported from Great Britain to one-half the rates charged under the general tariff, and that further gradual, uniform reductions be made in the remaining tariff on British imports that will ensure complete free trade between Great Britain and Canada in five years.

(*c*) That the reciprocity agreement of 1911, which still remains on the United States' statute book, be accepted by the Parliament of Canada.

(*d*) That all foodstuff not included in the Reciprocity agreement be placed on the free list.

(*e*) That agricultural implements, farm machinery, vehicles, fertilizers, coal, lumber, cement, illuminating fuel and lubricating oils be placed on the free list, and that all raw materials and machinery used in their manufacture also be placed on the free list.

(*f*) That all tariff concessions granted to other countries be immediately extended to Great Britain.

(*g*) That all corporations engaged in the manufacture of products protected by the customs tariff be obliged to publish annually comprehensive and accurate statements of their earnings.

(*h*) That every claim for tariff protection by any industry should be heard publicly before a special committee of parliaments."

(2) The Tariff resolution carried at the convention of the Liberal party in Ottawa, on August 6th, 1919:

"That the best interests of Canada demand that substantial reductions of burdens of customs taxation be made with a view to the accomplishing of two purposes of the highest importance;

First—Diminishing the very high cost of living, which presses so severely on the masses of the people;

Second—Reducing the cost of the instruments of production in the industries based on the natural resources of the Dominion, the vigorous development of which is essential to the progress and prosperity of our country.

That to these ends wheat, wheat flour and all products of wheat; the principal articles of food; farm implements and machinery; farm tractors, mining, flour and saw-mill machinery and repair parts thereof; rough and dressed lumber; gasoline, illuminating, lubricating and fuel oils, etc.; nets, net twines and fishermen's equipments; cements and fertilizers, should be free from customs duties, as well as the raw material entering into the same.

That a revision downwards of the tariff should be made whereby substantial reductions should be effected in the duties on wearing apparel and footwear, and on other articles of general consumption (other than luxuries) as well as on the raw material entering into the manufacture of the same.

That the British preference be increased to fifty per cent. of the general tariff.

And the Liberal party hereby pledges itself to implement by legislation the provision of this resulution when returned to power."

British Preferential Tariffs

Your Committee during the past year have been governed by the following resolution which was adopted by the Canadian Manufacturers Association at its last annual convention:

"Whereas, Canada was the pioneer amongst British countries in providing customs tariff preferences for imports of British products, and

"Whereas, the policy of customs preferences, designed to develop and consolidate Imperial ties of sentiment and trade, is now finding favor with other British countries and is being advocated by them, and

"Whereas, the British tariff preferences provided by the Dominion of Canada are more extensive than the preferences provided in the fiscal policy of any other British country;

"Be it resolved that the Canadian Manufacturers Association in annual meeting assembled in Toronto on June 12th, 1919, earnestly petition the Dominion Government to exercise its influence to hasten the adoption throughout the Empire of substantial customs preferences for Empire products, corresponding to the preferences now provided in the customs tariff of Canada."

In June last, the 5 per cent. war tariff, which has applied since early in 1915 against imported goods produced in British countries was completely removed by Parliament.

This 5 per cent. war tariff on British goods was a war-time measure and its removal followed quickly after the termination of hostilities.

The British tariff preference and exchange conditions unite to encourage importations into Canada form the United Kingdom. Their shipments to us for January, February and March, 1920, respectively, were in each month greater in value than in any previous month in the past history of this Dominion. For over twenty-three years the customs tariff of this Dominion has provided substantial preferences to the products of British countries—averaging one-third lower than the customs duties payable on similar goods of foreign production. Canada was the first British country to adopt the preferential tariff principle. The benefits of this pioneer work will not reach full achievement until the policy is generally adopted throughout the British Dominions. New Zealand is the only country so far that has reciprocated whole-heartedly the spirit of the Canadian preferential tariff system. British South Africa and certain of the smaller British West Indies have granted minor preferences on a limited list of British products. But the desire to develop and maintain, to strengthen and consolidate, to foster and increase the national ties between British Dominions now seems to be tending surely toward the general adoption of preferential tariffs for British goods. The United Kingdom, in respect to her dutiable schedules, has extended tariff preferences to the products of the British Overseas Dominions, effective September 1st, 1919. The South African Government has announced that its tariff will be revised upward, and recent despatches state that there will be a wider margin of tariff preference for the products of British countries. In announcing the recent tariff changes in the Australian Commonwealth Parliament, the Minister of Customs stated that his Government was taking power to extend the Australian tariff preferences to British Overseas Dominions; and now Jamaica, Ceylon, British India and Malta, which never before expressed encouragement toward the principle of tariff preferences, are engaged upon the study of their schedules with the aim of extending preferences to the products of other British Overseas Dominions. In this connection, attention is drawn to the following table which shows the purchases and sales made by Jamaica with Canada, the United Kingdom and the United States:

Jamaica's purchases from Canada, the United Kingdom, the United States and other countries, are in the following ratio:—

	1877 %	1887 %	1897 %	1907 %	1917 %
Canada	13.9	6.6	7.2	5.5	6.7
United Kingdom ...	50.7	62.0	46.7	47.4	19.5
United States	31.6	28.3	43.3	43.6	70.1
Other countries	3.8	3.1	2.8	3.5	3.7

Jamaica's sales to Canada, the United Kingdom, the United States, and other countries, are in the following ratio:—

	1877 %	1887 %	1897 %	1907 %	1917 %
Canada	.005	1.31	1.11	7.88	15.03
United Kingdom ...	79.46	38.62	25.97	22.37	45.20
United States	15.04	43.93	57.96	55.60	28.22
Other countries	5.31	16.12	14.93	13.12	11.25

It will be seen from the foregoing that Jamaica's purchases from British countries have been steadily dwindling. Over 70 per cent. of her requiremnets are now purchased in the United States. On the other hand, the sales of Jamaican products to British countries have been steadily increasing, so that now the greater proportion of her sales are to British countries. The products of any British country entering Jamaica are subject to the same rate of duty as would apply on like goods entering Jamaica from the United States. On the other hand, Jamaican products entering Canada are admitted throughout at the lowest British preferential tariff rates provided in the tariff of Canada.

On the whole, prospects seem bright for the general extension of British preferential tariff systems throughout British countries. Such an arrangement amongst British Overseas Dominions would correspond with the policy followed between the United States and United States' overseas countries, including Cuba. A similar policy is followed toward their respective possessions by France and Italy, and was followed by Germany.

Tariff preferences would overcome the handicaps upon the exports of Canadian products. Import duties as collected in Australia apply upon higher values, in many instances, in respect to shipments from Canada, than upon like shipments from the United States. The tariff of Australia consists largely of percentage duties. These duties are assessed upon the value of imported goods as sold for home consumption at the time and place whence shipment is made directly to Australia, plus freight thence to the port of exit from the exporting country, and the whole, plus ten per cent. New Zealand appraises importations similarly for duty purposes. South Africa appraises importations on the same basis, but without adding the ten per cent. The home selling price in Canada is higher on a large number of groups of commodities than the United States' home selling price on like goods, caused by our higher manufacturing costs, owing to revenue duties on imported materials, equipment and supplies of a kind not obtainable here. Thus, goods shipped from Canada into such British Overseas Dominions are assessed duty on a higher valuation than would apply on like goods shipped thereto from the United States. This results in a larger sum in duties being payable on the same goods shipped from Canada than would be payable on the same goods shipped from the United States. But, as already stated, tariff preferences would overcome these handicaps, while allowing each great British State to build up its own self-supporting fiscal system.

Dumping Due to Depreciation in Exchange

Your Committee point out that the War Measures Act will automatically be repealed when peace is finally signed and proclaimed. The result will be that a foreign country, in which there has been a great depreciation in exchange, may be able to dump manufactured goods in Canada at less than the cost of production of similar goods in Canada, notwithstanding that duty is assessed on the par value of the currency of such country.

Your Committee has recommended that the Government should take the necessary power to restrict the importation, by prohibition, or the payment of counter-balancing fees under license, of all, or of specified goods produced in a foreign country, on being satisfied that the depreciation in foreign currency is likely to cause sales in this Dominion of the products or manufactures of that country, in substantial quantities at prices considerably below those at which similar articles manufactured in this Dominion can be sold.

Value for Duty; Depreciated Foreign Currencies

When sterling in New York was at $3.69 the tariff of Canada against British goods was practically eliminated: and only the enormous world demand for the products of United Kingdom factories, under conditions which clearly are temporary, prevented the flooding of our markets with shipments of goods from the United Kingdom. Evidence of

this fact is found in the imports from the United Kingdom for January, 1920, which exceeded in value all such importations in any previous month of our history. As sterling falls in New York the conditions are accentuated. And if the value of sterling were determined for duty purposes by the exchange rate, customs duty would be collected on lower values than the fair market value of the goods as sold for "home" consumption in the United Kingdom. This would be contrary to the Customs Act of Canada; but if the concession could be, and were, granted, the loss in customs revenue would be very great. Moreover, it cannot be contended that transactions for "home" consumption in the United Kingdom are appreciated in price to the extent or in correspondence with the depreciated value of sterling in Montreal. This can be realized at once by consideration of our own condition for transactions in general for "home" consumption in Canada are not appreciated in price to the extent or in correspondence with the depreciated value of the Canadian dollar in the United States. The basis of sterling, the franc and the lira, still is gold, and it is to the interests of Canadian importers that there should be a settled basis for the valuation of imported European goods. If the rate of exchange were to be allowed in calculating the value for duty, it is probable that no two importers of the same goods would pay the same amount of customs duties. Thus, there would be all sorts of invidious discriminations.

The action of the Customs Department of Canada in placing the same par valuation on sterling exchange which the United Kingdom attaches thereto in respect to sales for "home" consumption in that country, does not destroy, as some erroneously contend, the effect of the British Preferential Tariff of Canada. Examples of actual transactions will make this clear. With sterling in New York worth $3.69, the Canadian dollar in New York being at a discount of 13½ per cent., the value of the pound sterling in Montreal is $4.18. On this basis the customs duties, and laid down cost in Canada, on a direct importation from the United Kingdom into Montreal, as compared with a like shipment into the United States and reshipment thence to Canada, would be as follows:

From United Kingdom Direct to Montreal.

1,500 lbs. tissue paper, £200; par value, $973.00.		
Duty at 15%, British Preferential Tariff, on the par value of the pound	$145 95	
Freight and insurance, say	7 00	
Actual cost in Canadian money, with sterling at $4.18	836 00	
		$988 95

From United Kingdom into United States and Reshipped thence to Canada.

1,500 lbs. tissue paper, £200; converted at $3.69	$738 00	
United States duty at 30%	221 40	
New York brokerage or commission, say	45 00	
Freight and insurance, say	7 00	
	$1,011 40	
If reshipped to Canada, ex U.S. Customs Bond, the General Tariff Rate would have to be levied on this sum of $1,011.40.		
Canadian duty on $1,011.40 at 25%, plus 7½% War Tariff	$328 57	
Dumping duty	151 65	
Freight, New York to Montreal, say	7 00	
Exchange, 13½% on $790.00	106 65	
Laid down cost in Canada		1,383 87
Difference in favor of making direct importation from United Kingdom to Montreal		$394 92

ANOTHER CASE.

From United Kingdom Direct to Montreal.

1,000 yds. woollen cloth at £1 per yd.; par, $4,860.00.		
Duty at 30%, British Preferential, on the par value of the pound	$1,458 00	
Actual cost in Canadian money, with sterling at $4.18	4,180 00	
Freight, insurance, etc., say	100 00	
		$5,738 00

From United Kingdom into U.S. and Reshipped thence into Canada.

1,000 yds. woollen cloth at £1 per yard; converted at $3.69	$3,690 00	
United States duty, 35%	1,291 50	
New York brokerage or commission, say 5%	184 50	
Freight, insurance, etc., to New York	100 00	
Duty paid, fair market value in New York	$5,266 00	
If reshipped to Canada, ex U.S. Customs Bond, the General Tariff Rate would have to be levied on the sum $5,266.00.		
Canadian duty on $5,266.00 at 35%	$1,843 10	
Dumping duty, 15%	779 90	
Exchange, 13½% on $3,974.00	556 51	
Freight, New York to Montreal, say	100 00	
Laid down cost in Canada		7,234 01
Difference in favor of making direct importation from United Kingdom to Montreal		$1,504 01

ANOTHER CASE.

From United Kingdom Direct to Montreal.

20,000 yds. unbleached cotton fabric at 1 shilling per yd., £1,000, or (par) $4,860.00.		
Duty at British Preferential Rate, 15%.	$729 00	
Actual cost in Canadian money, with sterling at $4.18	4,180 00	
Freight, insurance, etc., say	100 00	
		$5,009 00

From United Kingdom into U.S. and Reshipped thence to Canada.

20,000 yds. unbleached cotton fabric, £1,000; converted at $3.69	$3,690 00	
United States duty at 20%	738 00	
New York brokerage or commission, say 5%	184 50	
Freight, insurance, etc., to New York	100 00	
Duty paid, fair value in New York	$4,712 50	
If reshipped to Canada, ex U.S. Customs Bond, the General Tariff Rate would have to be levied on the sum of $4,712.50	$4,712 50	
Canadian duty at 25% on $4,712.50	1,178 00	
Dumping duty	706 80	
Exchange at 13½%	536 19	
Freight, New York to Montreal, say	100 00	
Laid down cost in Canada		6,495 79
Difference in favor of making direct importation from United Kingdom to Montreal		$1,486 79

The Canadian Customs appraisement of importations from the United Kingdom, according to par value of sterling, cannot be evaded by shipment of such British goods into the United States and reshipment thence into Canada. If any overseas goods are shipped into the United States and subsequently reshipped into Canada, the Canadian Customs, under the law as it stands, has to appraise such goods according to the duty paid, open market, usual home selling price for consumption in the United States. Thus, the cost

of goods from the United Kingdom, plus carriage, insurance and other charges into the United States, including the United States duty and the profit which would accrue if sales were made in the United States, have all to be added together to arrive at the value for duty of such shipments from the United States into Canada. Also, such importations into the United States have to be entered at the general tariff rate instead of British Preferential Tariff rate. The result is that British goods cannot be shipped into the United States and reshipped into Canada except at a loss when compared with the laid down cost of like goods shipped direct from the United Kingdom into Canada. The provision in the Custom law of Canada referred to in the foregoing is Section 50, as follows:—

"The Governor in Council may provide that in the cases, and on the conditions to be mentioned in the Order in Council, goods *bona fide* exported to Canada from any country, but passing in transitu through another country, shall be valued for duty as if they were imported directly from such first mentioned country; provided that goods which have been entered for consumption or for warehouse, or which have been permitted to remain unclaimed, or which have been permitted to remain for any purpose, in any country, intermediate between the country of export and Canada, shall not be considered as in transitu through such intermediate country, but shall be treated as goods imported from such intermediate country, and be valued and rated for duty accordingly."

The regulations founded on this section appear in Customs Memorandum No. 1097-B.

If the depreciation in sterling were to be allowed for Customs duty purposes, the same principle would have to apply to importations into Canada from the allied countries and also to importations from late enemy countries. Thus, a change from the present Customs requirements, to an allowance for exchange conditions, would promote sales in this country from late enemy countries, more than from any other country.

The German mark has a par value in Germany of 23.8 cents, but is worth about one cent in Canadian money. Allowing exchange as outlined would result in an article which sells in Germany for 1,000 marks ($238) being appraised by the Canadian Customs at one cent per mark, or $10. A case in point: One grade of German lead pencils were sold for export before the war at 26 marks per gross (equal to $6.18 in Canadian money). Within recent weeks they have been offered at the same price of 26 marks to Canadian merchants. If exchange were allowed, these pencils, if imported now, would have to be appraised by the Customs at about 26 cents per gross, instead of $6.18; but 26 cents would scarcely buy the graphite used in their manufacture.

On the foregoing principle, goods purchased in Russian roubles should be appraised by the Canadian Customs as valueless, because the Russian rouble has no exchange value.

The adoption by Canada, for Customs revenue purposes, of this basis for the nominal valuation of goods from late enemy countries, would give to the products of those countries the most advantageous Customs tariff privilege for shipment into Canada that could possibly be extended to those countries by their greatest friend and ally. No single act of this country could be more pleasing to Germany than a change in our Customs law that would allow importations from Germany and Austria to be appraised to the exchange value of the German mark or the Austrian crown.

Australia absolutely prohibits importations from late enemy countries.

On January 14th, Australia issued a proclamation prohibiting the importation into the Commonwealth of:

(1) Goods manufactured or produced in or brought directly or indirectly from Germany, Austria-Hungary, Turkey or Bulgaria. Goods shall be deemed to have been manufactured or produced in Germany, Austria-Hungary, Turkey or Bulgaria, if more than 5 per cent. of the invoice value thereof has been derived from labor of persons resident in any of those countries, and the onus of proof of the country of manufacture shall be on the importer;

(2) The terms "Austria-Hungary" and "Turkey" mean those countries as existing before the war.

New Zealand likewise prohibits such importations.

The Dominion Government now has no power to prohibit or restrict importations from late enemy countries. To do this there would have to be an Act of Parliament, now that the War Measures Act has lapsed. And it is extremely improbable that any such prohibition would be authorized by Parliament.

Importations into European countries from North America are subject to the handicap of prohibitory adverse exchange rates. But an illustration of how these countries still further impede shipments from America appears in a recent order of the French Government. In this order France protects her markets by ruling American currency as being appreciated instead of her own currency being depreciated. Goods costing $1,000 in American money would have a par value of 5,208 francs. But France appraises such an importation at 11,600 francs for duty purposes. This raises the ad valorem tariff rates of France 123 per cent.

The United Kingdom applies the same rule on importations into that country from the United States and Canada.

It is a fact that in none of the European countries has there been appreciation in costs corresponding to the depreciated value of their currency in relation to the American dollar. And if such depreciation were allowed for duty purposes by this country in the appraisement of the currency of the exporting European country, the goods would not pay duty upon their true fair market value as sold for home consumption in the country of export. But the Customs law makes the value for duty of importations into Canada the fair market value as sold for home consumption in the country of export.

The exchange provisions appearing in the Customs Act of Canada were designed to meet the conditions in those countries whose currency standard is silver, such as Mexico, India, China, etc., where the value of the currency fluctuates in correspondence with the fluctuation in the price of silver.

When one considers that the depreciation of these currencies in relation to our money is so great as to far more than offset the Canadian Customs duty on imports, it is ridiculous to contend that the Customs provisions destroy or attempt to destroy the British preference and the difference in present exchange values.

Marking Country of Origin on Imported Goods

The Executive Council, on the recommendation of your Committee, has asked the Dominion Government to amend the customs regulations so as to provide that each and every manufactured article imported into Canada from any other country, including countries of the British Empire, shall be clearly marked so as to indicate definitely the country of origin.

It is recommended that the above regulation should be so worded as to strengthen the present Canadian customs regulations as to "marking", by adding provisions similar to the

following regulation in the United States' Tariff Act of 1913, which deals with the same subject:—

"F. Subsection 1. That all articles of foreign manufacture or production, which are capable of being marked, stamped, branded, or labeled, without injury, shall be marked, stamped, branded or labeled in legible English words, in a conspicuous place that shall not be covered or obscured by any subsequent attachments or arrangements, so as to indicate the country of origin. Said marking, stamping, branding, or labeling shall be as nearly indelible and permanent as the nature of the article will permit.

All packages containing imported articles shall be marked, stamped, branded, or labeled, so as to indicate legibly and plainly, in English words, the country of origin and the quantity of their contents, and until marked in accordance with the directions prescribed in this section no articles or packages shall be delivered to the importer.

Should any article or package of imported merchandise be marked, stamped, branded, or labeled, so as not accurately to indicate the quantity, number, or measurement actually contained in such article or package, no delivery of the same shall be made to the importer until the mark, stamp, brand, or label, as the case may be, shall be changed so as to conform to the facts of the case.

The Secretary of the Treasury shall prescribe the necessary rules and regulations to carry out the foregoing provision."

The Budget

An analysis of the taxation proposals, including the tariff changes contained in the budget submitted by the Minister of Finance to Parliament on the 18th May, 1920, with necessary observations and explanations, was forwarded to the membership by special circular on May 25th.

Orders-in-Council and Rulings

Notice of changes in customs regulations as effected by Orders-in-Council or by customs rulings have always been sent promptly to members primarily interested. In addition, full announcements have appeared in INDUSTRIAL CANADA each month.

During the year the Tariff Department, in co-operation with members concerned, has handled a large number of questions before the Department of Customs as to customs tariff interpretations, of questions as to value for duty of imports, of matters requiring new statistical classification, of customs seizure charges, the return of duties overpaid, and the settlement of drawback claims. Members are again reminded that the Manager of the Tariff Department is available to all members for consultation and assistance in respect to any customs matter, either foreign or domestic. In this connection it is gratifying to report that the facilities of the Tariff Department for advising on foreign tariff rates, invoice forms, etc., have been extensively used during the past few months.

All of which is respectfully submitted.

E. J. DAVIS, *Chairman.*

J. R. K. BRISTOL,
Manager, Tariff Department.

J. E. WALSH, *General Manager.*

Discussion of Report

The report of the Tariff Committee was read by Mr. J. R. K. Bristol, manager of the Tariff Department. Referring to the matter of customs on page 17 of the report, Mr. Bristol said: "I might state this provision in the Customs law is the only protection which Canadian wholesalers have under our system of government, and were it not for this provision, I am confident the Canadian wholesale trade, instead of being handled by Canadian wholesalers, would be handled by United States wholesalers and jobbers."

The report was received with applause.

MR. S. R. PARSONS (Toronto): "Mr. Chairman, I rise to move the adoption of this splendid report which we have heard with such great interest this afternoon. It appears to me that nothing could have been suggested which has not been included in that report to make clear our tariff arrangements in Canada. I think that Mr. Bristol, as manager of the Tariff Department, deserves the congratulations of this whole Association, not only on account of the splendid work which he has done throughout the years of his connection with that department, but for the particular work which has engaged his attention more than that of any other officer in preparing this report. It is certainly not only very interesting, but I think it answers in detail the criticisms that have been made throughout this country against the manufacturers and against the tariff.

Removal of the War Tax

"I am particularly glad that there is a reference to the removal of the 7½ and 5 per cent. war tax. It has been stated by certain newspapers in this country that that war tax was put on at the instigation of the manufacturers. That is an incorrect statement. The manufacturers had nothing to do with the imposition of that war tax. They accepted it just as they accept loyally any other pronouncement of the Government in connection with taxes; and it has been said that there was very serious objection on the part of certain manufacturers to the removal of that 7½ and 5 per cent. tax. Now, I think I am safe in saying, so far as the Association knows, there has been no such objection. (Hear, hear.) I would like to make that very plain and specific, because only the week before last a very influential newspaper in Canada came out with the statement that there was great opposition on the part of manufacturers to the removal of that 7½ per cent. war tax, and it may be possible that here and there a manufacturer, who is handling only certain Canadian raw materials, benefited by that extra war tax, but, generally speaking, considering the fact that very large quantities of raw material are imported, and that the war tax applied on raw materials which is less than on finished products, manufacturers were not benefited, and speaking feelingly, some of them had to stand a considerable loss on account of that imposition.

"There are one or two other suggestions made in the report, or rather they grow out of the report, and one of them seems to be this: In the public mind to-day there is a feeling that if the duties were decreased or removed there would be just so much less of a tax on our commodities. Now, it is a false view. So much money has to be raised in one way or another in this country, an enormous amount as we know now on account of our war obligation. Now, if we don't raise the money through duties, we are going to raise it in some other way, and I think we should point out to a lot of our friends who are agitating just now for the removal of the duties, or for a very large decrease in them, that it means they have to pay so much more through some other direction, some other channel; and as one who believes in the tariff and who has been assailed by many of the newspapers, and called a high protectionist and all the rest of it, which I never was, but I believe in a reasonable protection for industry which we cannot get along without—I say this, it is our duty to make clear this point that the removal of customs' duties would mean that through other channels we will have to pay very much higher taxes than we are now doing.

"Let us apply it to the farming population. The farmers of this country in population we will say are about one-half

of the whole. It has been figured out by those who have gone into statistics very clearly that, under the present customs duties, the farmers pay only from three-fifths to two-thirds as much as other classes in the community under that tariff. Now then, if the present tariff were removed the farmers would not be not only contributing their share through the customs duties; but we all know how difficult it is to get returns from the farmers by way of the Income Tax. I am right in saying so far the farmers of this country have not paid one per cent. of the Income Tax. In the United States, a country which is more thickly populated than our own, and where the Income Tax is more readily applied and more easily collected, it has been stated by the *New York Times*, that the farmers of the country have not paid more than one-half of one per cent. of the total Income Tax. That is pretty much the case in Canada. Therefore, if there be a removal of the duties which are not paid through the customs, the farmers of this country would have very little to pay.

"Now, I don't believe that that is what the farmers are aiming at at all. I believe the farmers, generally speaking, are willing and ready and anxious to contribute their fair share of all the taxes in the country, and therefore the thing that strikes me about it is that many of them are being misled, their leaders trying to make it appear that a condition exists whereby the manufacturers of this country have a tariff which enables them not only to make a profit but whatever the tariff rates are, to make that in addition just to put into their own pockets. That has been suggested over and over again. We know that is not the case; and we know that while here and there some manufacturers are making a considerable amount of money just as here and there, some farmers are making a considerable amount of money, yet the vast majority of manufacturers are only making a very, very reasonable and moderate profit, and, if it were not for the help which is afforded them by the tariff which now prevails, many of them would have to go out of business; and I feel therefore that the report which is before us to-day and which sets forth so clearly the exact position with regard to the tariff is the finest pronouncement we have ever made, and I hope it will be circulated throughout this entire country. Coming from the East to the West here our mouths have been closed and to some of us it has been a bottling up, I will tell you, that we didn't like very much, but we felt it was the wise thing to do. Now, however, Mr. President and Mr. Chairman, I take it for granted that we are no longer tied up and that we can speak freely, and I hope the pronouncement which we will make as manufacturers in this annual meeting will be of such a nature that it will help to settle and convince people throughout the country that we are not tyrants, we are not robbers, we have as much the interests of all classes of the people at heart as we have our own interests, and what we desire is, first of all, national revenue, and, secondly, employment of all men in this country."

MR. J. S. MCKINNON (Toronto): "Gentlemen, you have heard this very splendid report that has been presented by Mr. Bristol and I think a debt of gratitude might be expressed to the Hon. E. J. Davis, the Chairman of this Committee, for the splendid work he has done in connection with it. While we can pass this report, if it is your wish, I think we should all take it home and study it very carefully and properly digest it. Is there a seconder to Mr. Parson's motion?"

MR. PARSONS: "Before the motion is seconded, will you allow me to say it has been suggested that the figures which I gave now as having been prepared by certain statisticians, that the farmers contributed two-thirds to three-fifths of the amount of the tariff only related to this, that for instance the other classes of the population paid 100 per cent., whereas the farmers of the population throughout their territory, on account of the particular lines which they purchased, only paid three-fifths to two-thirds. I haven't the figures with me, but I have them and they have been very carefully compiled. I don't know whether I have made that clear now or not, Mr. Chairman, but I hope I have; if not I would like to make that clear."

MR. F. J. CAMPBELL (Windsor Mills): "Mr. Chairman, I have much pleasure in seconding Mr. Parsons' motion. There is no department, I believe, in the Association that is worthy of more unstinted praise than the Tariff Department, and the work of Mr. Bristol.

"There is just one thing that I would like to call attention to, and it may be worth while to eliminate a small clause. This clause is on page 12 of the report, and it reads 'The home selling price in Canada is higher on a large number of groups of commodities than the United States' home selling price on like goods, caused by our higher manufacturing costs, owing to revenue duties on imported materials, equipment and supplies of a kind not obtainable here.' That might give ground to those who wish to argue that the tariff is not an unqualified benefit to the manufacturers of Canada, and furthermore, a considerable proportion of our increased cost is caused by the fact that our markets have not yet grown to the proportions that enable us to specialize as closely as in some larger centres, and the increased cost is not entirely due to those import duties."

MR. BRISTOL: "May I state, Mr. President and gentlemen, the sentence referred to on page 12 of the report is beyond any question of doubt a statement of fact. There are many manufacturers whose principal material must be imported, and that material is subject to revenue duties. There are many manufacturers who must import practically all their machinery and equipment, and those importations are subject to duties ranging from 27½ to 35 per cent. In the operation of their plant they must, particularly in a central province like Ontario, import bituminous coal for fuel purposes on which the duty is 53 cents per ton, and in those respects their costs of production are raised as compared with the cost of production of like goods in the United States, where living conditions about correspond to our own. In that way the Canadian manufacturer who is in the class referred to in the sentence, cannot produce his goods and sell them at a price corresponding to the productive cost and selling price of like goods in the United States."

MR. F. W. STEWART (Montreal): "In regard to this matter, perhaps the business I am connected with would demonstrate that very clearly, and to a certain extent I think Mr. Campbell's point is well taken. In a business such as ours, possibly it is necessary for us to import 80 to 85 per cent. of the materials we use because they are not manufactured in Canada. We have been bringing in a large percentage of this material since we established a plant in the Dominion of Canada, and we brought the goods in, paid the duty on them and manufactured the article and we ship out from our Canadian factory at the same price as in the United States. I am glad to make that statement to confirm the statement which Mr. Parsons has just made in regard to Canadian manufacturers taking advantage of the duty and taking as long a price as they can. I do not believe we are alone in working along such lines. In fact, I come in contact with many manufacturers all over the country, and I have yet to find a manufacturer who is in any way endeavoring to take advantage of the duty which is paid on goods coming into this country. I am very glad to be able to make the statement so that the people of this country will have an opportunity

(*Continued on page* 221.)

Big Gain Made in Association Membership

Six Hundred and Sixty-two New Members Join During the Year, Producing a Net Gain of 531 and Bringing the Total Membership up to 4,061—Results by Provinces enumerated and Distribution Indicated

Report of Membership Committee

YOUR Committee take pleasure in reporting that 662 new members joined the Association since the last annual general meeting.

The Association began the year on May 1st, 1919, with a membership of 3,530. The applications received and passed totalled 662; resignations accepted numbered 131, bringing the total membership on April 30th, 1920, up to 4,061, a net gain of 531 for the year, as compared with a net gain of 141 for the year 1918-1919.

The results by provinces for the past year are indicated as follows:

	New Applications.	Resignations.	Net Gain.
Ontario	273	67	206
Quebec	182	17	165
British Columbia	63	14	49
New Brunswick	56	4	52
Nova Scotia	34	1	33
Manitoba	34	21	13
Alberta and Saskatchewan	11	7	4
Prince Edward Island	9	0	9
	662	131	531

The general work of your Committee was conducted by means of circulars, correspondence, and personal canvass of members of the staff. The special membership work was done chiefly through the national membership campaign held during the week of December 1st last. On that date, the campaign, which had been carefully organized during the preceding month, opened simultaneously all over Canada. Special committees had been formed in all the principal centres, in which the list of prospects had been carefully revised and distributed among members who had kindly promised to do some personal canvassing. The results of this splendid co-operation of the members, and the assistance furnished by them, made the campaign a great success. Members in a great many localities entered into the spirit of the campaign with enthusiasm and did a great deal of personal work.



H. A. Telfer
Telfer Bros., Limited, Toronto
Chairman 1919-20, Membership Committee

It is interesting to know that the Association has grown to its present size practically within the last twenty years. Though the history of the Association dates from 1872, it was largely a provincial organization until 1899, when it was decided to broaden its scope. At that time its membership was only about 300. The Association was incorporated by Act of Parliament in 1902. By 1905, the membership had grown to 1,604; by 1910, to 2,450; by 1915, to 3,098; and during the last five year period the membership has increased to 4,061.

It is gratifying to report that, of the 131 resignations accepted, none resigned because of dissatisfaction with the policies or administration of the Association. These resignations were due to such causes as amalgamations, discontinuing manufacturing operations, and failures.

The actual cash collections from fees for the year ending April 30th, 1920, amounted to $133,395, being an increase of $46,920 over the previous year.

The loss in revenue from resignations amounted to $2,015. On the other hand, the additional fees secured from new memberships amounted to $16,280.

The following table shows the distribution of the membership in each Province and the amount of fees paid by each class:

	$10	$15	$20	$25	$35	$50	$75
Ontario	338	436	165	344	313	199	147
Quebec	157	179	73	150	137	94	65
Nova Scotia.	24	47	3	28	12	9	6
Br. Columbia	36	32	7	34	24	7	9
New Bruns'k	24	31	8	28	22	14	7
Manitoba ...	154	81	21	36	25	19	6
Alta. & Sask.	82	43	13	16	11	6	1
P. Ed. Island	4	9	—	3	2	—	—
Total ..	819	858	290	639	546	348	241

	$100	$120	$150	$200	$300	$400	Total
Ontario	11	82	55	25	6	9	2,130
Quebec	5	43	26	15	8	4	956
Nova Scotia	—	2	5	1	—	2	139
B. Columbia	2	4	—	3	—	1	159
New Brunswick..	—	4	1	3	—	—	142
Manitoba	—	2	1	—	—	—	545
Alberta & Sask...	—	—	—	—	—	—	172
P. E. Island	—	—	—	—	—	—	18
Total	18	137	88	47	14	16	4,061

Your Committee are glad to be able to report increasing interest in the "100% campaigns" for membership. The

object of such a campaign in a community is to secure every eligible manufacturer as a member of the Association. At the present time a considerable number of industrial communities have a "100% membership" in the Association.

As the most effective method of securing members is through the personal effort of present members, your Committee respectfully urges that individual members consider it their duty during the coming year to induce non-members to join the Association.

All of which is respectfully submitted.

H. A. TELFER, *Chairman.*

J. T. STIRRETT, *General Secretary.*

J. E. WALSH, *General Manager.*

Report is Adopted

The report of the Membership Committee was read by the General Secretary.

Mr. A. D. Ganong moved, seconded by Mr. J. A. Reid, that the report of the Membership Committee be adopted.

THE PRESIDENT: "I would like to urge on the members one thing, let those that are present keep up the good work and let us have one hundred per cent. all over. Unity is strength and we need it."

MR. J. B. THOMSON (Vancouver): "May I ask that British Columbia be changed to 188?" (applause).

MR. STIRRETT: "I may say this report, to enable it to get out here in time, had to be printed about a month ago and these members have come in since that time."

The President put the motion to adopt the report of the Membership Committee, which, on a vote having been taken, was carried and the report declared adopted.

Presentation to C.P.R. Officials

A Pleasing Incident

ONE of the pleasant incidents of the annual banquet on the evening of June 9 was a presentation made to Mr. W. B. Howard, District Passenger Agent, C.P.R., Toronto, and his assistant, Mr. Price, in recognition of the splendid way in which they had looked after the comfort and welfare of the excursion party. The subject was introduced by Mr. T. P. Howard, with the following tribute:

"I have a very, very pleasant duty to perform this evening. As we came across the continent from Montreal (in fact some of our members came from the Maritime Provinces), and came to Toronto and straight through the Rockies to your City of Vancouver, we had one gentleman on board who was largely responsible for the success of our venture—very largely responsible, I might say, wholly responsible, for the pleasure we had. The service which has been given to us by the Canadian Pacific Railway is something that those who were with us on the train do not need to be told anything about. I refer particularly to my good friend and namesake, Mr. W. B. Howard. There was only one single, solitary thing that ever made Mr. Howard cross, and he said 'darn' when, after coming 2,000 odd miles, we pulled into Edmonton eight minutes late. In consequence and as a mark in some small way of the appreciation of this travelling all-star troupe, conducted by Messrs, Walsh, Howard & Company, Limited, on this continental tour—I think the idea originated with the ladies; they suggested we should in some way acknowledge our appreciation and our thanks to Mr. Howard—and, sir, it is my pleasure to do so. In consequence I have been asked, sir, if you would be good enough to accept on behalf of the troupe this small presentation in the hope that on our way back we will not lose that eight minutes." (Laughter).

Mr. T. P. Howard then presented Mr. W. B. Howard with a gold watch for himself and a pendant for Mrs. Howard.

MR. W. B. HOWARD: "Mr. Ex-president and namesake, ladies and gentlemen: Had I known that something like this was going to happen I won't say I would have been conspicuous by my absence, for that would not have been the truth, but I would have been not altogether unprepared. But, we live and learn. It is not the first time I have been unprepared, but I hope it will be the last, like the colored man who was sentenced to be executed and just before being executed was asked if he had anything to say and he replied, 'This certainly am going to be a lesson to me.' (Laughter).

"I am sure if the party that came with me enjoyed my presence on this trip half as much as I have enjoyed their presence, I am perfectly satisfied. Speaking of the question of transportation, of course I don't know anything else. A C.P.R. man lives, eats and sleeps and sometimes talks C.P.R. I don't propose to discuss the question to any great extent, suffice it to say that we are trying to-day to give what the public appreciates, and that is service. That is what we have tried to give you on this trip. The Canadian Manufacturers and the Canadian Pacific Railway or any transportation company are in partnership. The manufacturer depends upon the railways for efficient transportation. On the other hand the railways depend upon the manufacturer for his business to transport, and on the public generally for its support and patronage. On such depends its life and existence. A railway whether Government-owned and operated, or privately-owned and operated is still a public utility. Its employees are public servants, and railway employees do well to remember the latter. In fact we seldom are allowed to forget it. I don't want to say any more. I suppose if I had been given a little warning I could say more and could have made perhaps a better speech than some people have made that I have heard (laughter), but I want to again thank you for your kindness."

MR. T. P. HOWARD: "I had almost forgotten when I got up awhile ago that Mr. Howard had with him an assistant. We want to thank Mr. Price. He is also the right sort and is on his way to a great deal bigger position in the C.P.R. than he has to-day, or I have missed my guess. (Applause). It is not altogether Mr. Price's fault. I had him with me for one year in Washington. That is why he is getting on so well. However, Mr. Price, on behalf of the train, I want you to please accept their thanks for your courtesy and kindness."

MR. PRICE: "Mr. Howard and gentlemen, I think I am taken more unawares than Mr. W. B. Howard was. All I can say is, Thank you, I appreciate it very much." (Applause).

Work Done for the Promotion of Trade

What Has Been and is Being Done by the Association to Assist Members and Others in Developing Trade Both at Home and Abroad Through the Compilation and Dissemination of Information Bearing on Commerce and Industry

Report of Commercial Intelligence Department

OWING to a constitutional change made at the last Annual Convention, this is the first time that your Commercial Intelligence Committee has had the honor of reporting to the Annual Convention.

As the Department over which the Committee exercises supervision has been in operation since 1915, some time was necessarily spent by your Committee in confirming or changing existing practises and in evolving definite lines of policy for the successful and effective operation of the Department. It has been the aim of your Committee to inaugurate constructive plans that will enable trade sections, affiliated Associations, and individual members to participate in movements brought to their attention. At the same time your Committee realizes the importance of keeping the Department abreast of the times with regard to information on the economic situation in Canada as related to her industries and to put it in a position to place detailed information at the disposal of members.

On this first occasion of reporting probably it will not be taken amiss if some brief account of the general lines of work is given before dealing specifically with the more important questions considered during the year.

The work of the Commercial Intelligence Department is extensive in scope and varies in character from minor enquiries about minute particulars connected with different businesses to the negotiation of working arrangements with other bureaus of information. Commercial organizations, and Government Departments and Commissions, particularly the Department of Trade and Commerce, the Dominion Bureau of Statistics, and the Canadian Trade Commission.

The information bureau work brings the Department into touch with the general public and the non-manufacturing part of the business community and many members of the Association receive through ordinary business channels many enquiries for their products as a result of this connection. In practically all these cases the Department does not appear, but nevertheless direct service is thereby maintained for the benefit of the membership. The basis for this work has been the compilation of the Canadian Trade Index, which calls for an enormous amount of changing, adding, and rearranging to ensure the production of an adequate source of information.

On account of the records and classified information maintained by the Department, gleaned from many sources, coupled with the previous experience of the staff, the Commercial Intelligence Department, perforce, occupies the position of a service department to other departments of the Association and, when the occasion is important enough to demand it, as much as a week of the time of almost the whole staff is devoted to preparatory or organizing work in connection with many of the general Association activities.

As an indication of the practical use to which a close survey of the progress of individual industries can be put, it has been possible for your Committee during the past year to increase the revenue of the Association by over $6,000, through a careful readjustment of fees. The Canadian Trade Index will also show a profit, which will be augmented by sale of additional copies.

Among the important questions receiving the consideration of your Committee were the following:—

Export Trade.

This falls naturally into a number of subdivisions as:

Trade Enquiries.

Trade enquiries were received from abroad, direct from our numerous correspondents, and through the Department of Trade and Commerce, and the Canadian Mission in London.

These were circulated, after careful scrutiny, as widely as possible by mail or through the columns of INDUSTRIAL CANADA. In all, over 400 enquiries were dealt with from nearly every quarter of the globe, and furnished opportunities to Canadian manufacturers to get information as to markets for their lines, and often resulted in the placing of business.

Investigation of Foreign Markets.

Where it was desirable to procure information confidentially as to the extent of foreign markets for special lines of Canadian-made goods and to ascertain competitive conditions and other particulars, enquiries were conducted, using the facilities of the Department of Trade and Commerce, supplemented by communication with our own correspondents, which often resulted in information of material value being placed at the disposal of members.

Agents and Merchants Visiting Canada.

Very frequent interviews are given to agents and merchants visiting Canada, with a view to handling lines on commission in their respective countries or in making purchases for resale. Practically all of these men, many of whom were prominent in the business life of their own communities, were put in touch with Canadian manufacturers who might be in a position to do business with them. Whenever practicable, information as to business conditions was gathered from these men, and our list of correspondents for future enquiries was thus augmented.

Commercial Reports.

During the past year your Committee has been deeply interested in increasing the existing facilities for the receipt of reports on the financial and commercial standing of all classes of business houses outside of Canada and the United States. It succeeded in arranging to supply these reports free of charge to members, in place of the former arrangement under which they cost $2.50 each. The net result has been that more of these reports have been called for in a month than were previously asked for in a year, and the saving to individual members by the inauguration of the new plan totals over $1,150.00. These reports are constantly kept on file, and the list is being added to continuously.

Export Circular.

There was a very gratifying response to the circular issued recently, asking for replies to a questionnaire dealing

with numerous points of interest to exporters or intending exporters. These replies have been fully tabulated and indexed in such a way as to give a bird's-eye view of the requirements of those members who submitted replies. The information thus obtained has already been used confidentially for the benefit of many members, and will continue to be useful in developing further export trade.

Improvement of Inter-Imperial Channels of Trade.

This subject was brought to the attention of the Committee by a variety of existing conditions, by reason of which it was felt that the free movement of commodities between the various parts of the Empire was being impeded either by the placing of export and import sales agencies in the hands of business men in countries not in the Empire, or by lack of direct steamship connections. Your Committee reaffirmed one of the basic principles of this Association's action, namely, the stimulation by all practicable means of the easy interchange of commodities produced within the Empire, and has instructed the Department to give every possible assistance to movements tending in this direction. It may be noted that citizens and organizations of other parts of the Empire, even if they are temporarily located elsewhere, are doing their share to assist in this project, as indicated by the proposal to establish or to rejuvenate British Chambers of Commerce in New York and San Francisco, and by the establishment of branches of British import and export merchant houses in Canada, India, South Africa and Australia.

Canadian Trade Index.

The 1920 edition of the Canadian Trade Index has just recently been distributed to all members of the Association, so that its character and scope will once more be recalled to those attending this Convention. The details of compilation and business management, through long usage, are under the supervision of the Publications Committee, and a special report will be submitted covering this phase. The compilation and editorial work, however, was done by the staff of the Department, whose work is supervised by the Commercial Intelligence Committee, and the wide range of information received from the unpublished schedules forms an increasingly valuable part of the classified records of the Department.

Great care is taken to see that copies of the Trade Index find their way into the hands of the purchasing agents of manufacturers, railways, mining companies, wholesalers, department stores, institutions and Government departments, and a carefully selected list of importers and commercial organizations in all the principal countries of the world. The discussion of the uses of the Canadian Trade Index has formed the subject of a number of conferences with various branches of the Purchasing Agents Association of Canada, and by this means a very useful and practical method of propagating the "Made-in-Canada" idea has been worked out.

Investigations Concerning New Products.

On numerous occasions the Dominion Bureau of Statistics, at the instance of this Department, has made special investigations into the production or importation of various commodities. These investigations have frequently revealed much more effective information than is or can be published broadcast. The work of the Bureau has been supplemented and checked in each of these cases by special work of the Department in gathering information from the wholesale trade and from large consumers. A concise statement of the results thus obtained is passed on confidentially to the enquirer, without disclosing any individual source of information. This information is supplied largely to two groups: Canadian manufacturers seeking new lines to manufacture and United States' manufacturers who are making a *bona-fide* effort to establish a plant in Canada. In similar connection, with the co-operation of the Tariff, Transportation and Legal Departments of the Association, information as to questions involving their expert assistance is supplied, as well as data as to labor supply and conditions, and possible sites and locations. The Department co-operates with any recognized organization which may be in a position to acquire and furnish useful information about local conditions and is operating to increase the industrial capacity of Canada.

Housing.

Closely related to the question of establishing new industries is the ever pressing problem of housing. The Commission of Conservation of the Dominion Government recently undertook a survey of those industries, formerly situated in the downtown districts of the larger cities, that have moved out to suburban sections or into small towns. The purpose of this survey was to determine the reasons for this movement, and more particularly to ascertain its relation to the solution of the housing problem. In this study a great number of towns and cities were visited, full information as to the changes that had taken place being furnished to the Commission by your Committee. A report on the whole situation has been produced for the use of the Commission, and the Housing and Town Planning Division has been enabled to suggest plans to various municipalities, based scientifically on their local conditions, coupled with the experiences through which other municipalities have passed.

Engineering Index.

Your Committee was seized of the importance of enabling the members of the Association to get a review of the arti-



Holt Gurney
Gurney Foundry Co., Limited, Toronto
Chairman, 1919-20, Commercial Intelligence Committee

From Our Gallery of Excursion Snap Shots



Inspection of Lumber Mills

Excursion party arriving in the yards of the Fraser Lumber Mills, while on a visit to New Westminster



Relaxation at Banff

Ex-President Howard and a number of enthusiasts enjoy a dip in the sulphur bath at Banff

cles or theses on technical subjects that are being published in a wide variety trade and technical papers, books and magazines, particularly since the range of these is so wide that it is impossible otherwise for these members to have more than a small fraction of them come under their personal observation. Arrangements are now being concluded to have selections made of the subjects and methods of treatment of these technical articles and published in INDUSTRIAL CANADA, together with particulars as to where the articles or publications may be obtained.

These questions are dealt with in such a comprehensive way that some of them will be of great interest to many other manufacturers than those engaged in purely mechanical trades.

Graphic Exhibits of Canadian Industries.

Your Committee has had under consideration the question of assisting in the development of graphic exhibits of Canadian industries. By this is meant an assembly of materials on commodities, showing the various stages of manufacture or the different materials and parts entering into the construction of such a commodity as an automobile, a heavy machine, or a fine carpet. Your Committee has in mind the use of the principal exhibitions now established in Canada as the functions at which to display such exhibits.

It is becoming more and more evident that much more must be done in Canada to acquaint the Canadian public with the scope and character of Canadian manufacturing enterprise. It has long been recognized that visual observation is much to be preferred as a means of education to the printed word, and in this case it has the advantage of being much more permanent, and the exhibits are placed before the public in its most receptive mood.

In considering the goods that might form such exhibits, no thought has been entertained of including such goods as are now exhibited in the rented booths and spaces, or to interfere in any way with an individual's right to exploit his own product under his own name, except in so far as it may be necessary to include an odd line or article to complete some cycle of exhibits.

A skeleton outline of various exhibits has been drawn up, and before the time for the preparation of the 1921 exhibits has arrived, sections of the Association, and members not allied to sections, will receive the result of your Committee's work in this direction, for their consideration and possible action.

All of which is respectfully submitted.

E. HOLT GURNEY,
Chairman.

ALEX. MARSHALL,
Manager,
Commercial Intelligence Dept.

J. E. WALSH,
General Manager.

Report is Adopted

The foregoing report was presented by the General Secretary with the following explanation: "Although there has been a Commercial Intelligence Department in the Association for some time, a committee was appointed for the first time at the last annual meeting to revise the work of the Department, and this is the first report that has been submitted as a separate report. The work of the Department is to keep a list of the articles manufactured in Canada and the firms which make them. This is published from time to time every three years in the *Canadian Trade Index*, which has just been published. This shows that there are 8,500 articles made in Canada, an increase of over 2,000 since three years ago when the last *Canadian Trade Index* was published. The Department also tries to get information in regard to where Canadian goods can be sold, and co-operates with the Government and other bodies and notifies our members where there are opportunities to sell goods. At the same time it tries to tell the members where they can get materials that they need in their manufacture.

"The report is before you and the president suggests that, owing to the amount of work which has to be done, that it be taken as read with this explanation."

THE PRESIDENT: "Is that satisfactory?" (Consent given).

It was moved by Mr. C. G. Robson (Edmonton), seconded by Mr. R. L. McIntyre (Toronto), that the report of the Commercial Intelligence Committee be adopted.

The president put the motion which, on a vote having been taken, was carried and the report declared adopted.

Proceedings During Election of Officers

Several Congratulatory Speeches are Delivered by Members—Incoming and Out-going Officers Express Their Appreciation of Honors Conferred—Message of Felicitation to Mr. J. F. Ellis, on His Retirement

AT the fifth business session on the morning of Wednesday, June 9th, the report of the Nominations and Resolutions Committee was presented, being read by the General Secretary. The name of Mr. John S. McKinnon, Toronto, was placed in nomination for the presidency; that of Mr. W. S. Fisher, St. John, for first vice-president, and that of Mr. John R. Shaw, Woodstock, for second vice-president. Mr. McKinnon being absent from the hall at the time, the floor was taken by Mr. Shaw, who said in part:—

"Gentlemen, I appreciate the honor of being elected your second vice-president very much, and I can see that the Nominating Committee have had in view the geographical situation, Mr. Fisher being in the Maritime Provinces. It is proper that these offices should be distributed, because we can assist each other and obviate certain long trips that the officials might have to make otherwise. My office of second vice-president will be a sinecure, with such an efficient President as John S. McKinnon, of Toronto, and Mr. Fisher in the east. As chairman of the Ontario Division, however, I recognize that I will have some work to do."

The New President Speaks

Mr. McKinnon, having in the meantime entered the hall, now took the chair amid applause, and said: "I would like to thank you sincerely for the honor that you have conferred upon me. I can assure you, gentlemen, I feel the responsibility but, with the Executive Committee and Council that I know I will be surrounded with, I feel that they will share in a very large part the responsibility of this national organization. Whether or not we realize it, I believe that men do appreciate the esteem and confidence of their fellows. And in this regard I would like to assure Mr. Howard that he has that esteem, regard and affection which we all appreciate so much. (Applause.) The work that Mr. Howard has done during the past year has placed the Association under a very deep debt of gratitude to him. We have had splendid presidents in the past, but I believe no man could fill the chair with greater credit to himself and with more honor to the Association than Mr. T. P. Howard." (Applause.)

Thanks to Mr. Howard

At this juncture Mr. J. B. Thomson, Vancouver, chairman of the British Columbia Division, rose to propose a vote of thanks to the retiring president. He said in part:—

"Mr. Howard's tenure of office has been during possibly the most troublous year in our Canadian history, the first year of reconstruction. Many problems have presented themselves, and Mr. Howard (my own personal acquaintance with him only dates back practically for twelve months, although I have followed him in public life and in the press reports) has taken a great part for his country during the war in his work at Washington. He also took a great part, where I met him more particularly, in the work of the Ottawa conference. While our good friend, Mr. Shaw, was the leader, Mr. Howard was there and saw that every one of us did the work and saw there was nothing passed up. I have, therefore, great pleasure, Mr. Chairman, in asking this Association to go on record as showing the great appreciation they have for Mr. Howard's services." (Applause.)

MR. A. D. GANONG (St. Stephen, N.B.): "Mr. Chairman, I would like to say just one word in regard to the Canadian Manufacturers' Association. I feel sure that a great many of our members, both those from the smaller concerns and those from the larger ones, have never appreciated the benefits of this Association. It undoubtedly has been of great benefit to the larger manufacturers, but I do not think a great many of the smaller concerns appreciate how much benefit they receive in an indirect way. I had one illustration of that, because in one of the branch organizations we put a thing through to the benefit of our members which saved us a great many thousand dollars in one year. While that result might have come in time, that one item alone will a great deal more than repay all we have ever paid or all the time we have ever given to the Manufacturers' Association; and I think a great deal of the work that is done brings an indirect benefit that amounts to thousands of dollars to all of us, but, because it is indirect, we do not see it. These benefits are larger according to the work done, and I feel sure every single member of this Association has benefited greatly this year by the amount of work Mr. Howard has put into the Association. We all know how difficult it is for us to get the time off to attend the meetings, but Mr Howard took the time to come down through the Maritime Provinces, to the great benefit of the Maritime Provinces and to the benefit of this Association.

"Further, I would like to say that, as President, a great many of us have met Mr. Howard, and I am sure everyone feels he has greatly enriched his acquaintance when he has met Mr. Howard. I have very much pleasure in seconding this vote of thanks to Mr. Howard." (Applause.)

The President hereupon put the motion, which was carried with applause.

Mr. Howard Responds

MR. T. P. HOWARD: "Mr. Chairman and gentlemen, Mr. Thomson and Mr. Ganong, I thank you most sincerely for your kind expressions. I feel that we have accomplished considerable during the past year, but I don't feel that we have accomplished half what we should have accomplished. I think there is a whole lot more we might have done if we had had the time to really get at it, but you have got to realize that when you elect somebody as president of the organization, you elect a man that is busy; he gives what time he can, but he can't devote all his time to it. It is very true I have been, in the interests of the Association, from coast to coast this year. Last fall we went down to the lower provinces and we are at the Pacific Coast to-day. Our membership campaign was a success, and I am going to say right now that our campaign for a proper fund to put us where we belong, is assured—I feel certain it is assured, and that it will also be a success.

"I have had a thought in mind, and I have spoken to several members about it. I think Mr. Walsh has it on his list, and I have spoken to our President about it, and I am quite sure it will be carried out. That thought is that I think there should be a permanent officer who would be able to represent the President of this organization, somewhat along the lines of Mr. Emery in the National organization

of the United States. When Stephen Mason gets a request to speak before any large body he has not the time to travel all over the continent, and Mr. Emery or somebody else does it for him."

MR. J. R. SHAW: "What is Mr. Emery's title in the National Association?"

MR. HOWARD: "He is counsel. I suggested that he be assistant to the President or something of that kind. I have had four or five invitations this year to address Canadian Clubs in different parts of the Dominion and I have not been able to accept them because I couldn't afford the time and also devote the time that I did devote to the Association. I think that is one thing we should very closely investigate



W. S. Fisher
Enterprise Foundry Co., Sackville and St. John, N.B.
Elected First Vice-President, 1920-21, Canadian Manufacturers Association

and see if something of that kind could not be worked out. As to the work that has been done, and there has been a lot of work done, I really feel that the credit is due to Mr. Walsh and those at head office, and to my very worthy assistant, Mr. McKinnon, who has been, I might almost say, a joint president, because he has done everything in his power to assist me. I would like very much, in accepting your thanks, to thank Mr. McKinnon and also Mr. Walsh and the staff generally, for the very excellent work they have done; and while I am, what shall I say, relegated to the ash-pile as an ex-president, if I can in any way advance the interests of the Association or be of any service in any way whatsoever, you will always find T. P. to the fore. I thank you, gentlemen." (Applause.)

MR. F. J. CAMPBELL (Windsor Mills): "It is with peculiar pleasure I have heard Mr. Howard remark that if this Association can call on him in any way he would like them to do it. With some few notable exceptions, officers that take an active part in the Association rise to high office and then feel, as Mr. Howard has said, they are relegated to the ash-pile and cease to take as close an interest in the working of the Association, as it would be to the benefit of the Association to have them do. We have with us a very notable exception to that, and I hope Mr. Howard will be one of them and not feel, because he has passed through office, that we need not look to him for advice, counsel and help." (Applause.)

Retirement of Mr. Ellis

Continuing the reading of the report of the Nominating and Resolutions Committee, the General Secretary said: "Your committee report with the deepest regret that the present Treasurer, Mr. John F. Ellis, of Toronto, owing to ill-health, would not consider re-nomination this year. Mr. John F. Ellis joined the Association in 1878, and has always taken a very active interest in the organization. He served as a member of Council and various committees, and in 1898 was elected president of the Association. Your committee have much pleasure in recommending that he be elected a life member of the Association by a unanimous vote of this annual general meeting."

MR. S. R. PARSONS (Toronto). "Mr. President and gentlemen, I am exceedingly pleased at the suggestion of the Nominating Committee. I did not know that it had in view what it has now suggested. It has come to me for the first time, but I am particularly pleased that the Association should be asked to do honor to one who has given so much time and thought and has honored the Association throughout all the years nearly of its history. Mr. John F. Ellis has been an outstanding figure in all our work and in all our relationships, either with the Government or with the public. He has been a man in whom the members of the Association have had the fullest confidence. He has given unstintedly of his own best work, thought and time, to promote the interests of the Association. He is a gentleman in whom we are personally interested because of the fact that he has such an attractive personality. We feel he is a friend and we recognize in him that he is a man who draws out and attracts to himself the best that is in each one of us in our thought of him; and so to-day I rise as one of the old guard to express my very great satisfaction with the suggestion of the Nominating Committee, and to move that this Association elect Mr. John F. Ellis to life membership in the Association."

MR. T. P. HOWARD (Montreal): "Might I have the pleasure, as ex-president, of seconding that motion, Mr. Chairman? We all know Mr. Ellis, and I can't add anything to what Mr. Parsons has said."

The President put the motion which, on a vote having been taken, was declared carried, with applause.

THE PRESIDENT: "If it is your pleasure, gentlemen, this information will be wired to Mr. Ellis to-day?" (Hear, hear.)

Election of Treasurer

The name of Mr. Thomas Roden, Toronto, was then presented as the Nominating Committee's choice of Treasurer, and the list of officers and committees, as published on page 245 of this issue of INDUSTRIAL CANADA, was read.

On motion of Mr. R. L. McIntyre, Toronto, seconded by Mr. A. D. Ganong, St. Stephen, N.B., the report was adopted.

At a later juncture, Mr. Roden was introduced to the meeting, and said in part:—

"Mr. Chairman and gentlemen, during his lifetime dear old Mr. Booth gave us splendid service for many years, and

Mr. Ellis has now retired on account of bad health. I am hopeful I will not be afflicted in like manner, but that I shall have the same spirit as Captain Dollar had, that although I might be 70, I have twenty years left in me yet.

"I want to assure you, gentlemen, I appreciate the honor very much, and I also appreciate the responsibility. As I stated before, I have been connected with this Association for over twenty years, and every year has been one of added benefit to myself for the opportunity of co-operating and mixing with the gentlemen I have had the pleasure of meeting.

"As our President has stated, it is a very responsible position, and I believe that I am to have very many friends on my return journey. They want to travel with the Treasurer. I don't know whether they are going to put any bogus cheques on me or not, that is something I will have to be very careful of, to say nothing of the ladies.

"As you know we are almost starting on a new era of activity in this Association by the tremendous extension of our departments, and I want you gentlemen to realize that, with the increased benefit that you will obtain from the Association, you cannot have this for nothing; and while I have been one of the most active opponents of any advance in rates for years, because my view at all times was we should try to build up the Association to the largest number, I am convinced when we give the service contained in the programme as outlined yesterday by our manager, Mr. Walsh, which is of such an extensive character, when that service is rendered by the Association, we must recognize we have to face a larger membership fee to enjoy those benefits and privileges. It has always been stated that the fee we have charged for membership in this Association has been ridiculous, and I have accepted the onus of appearing in a ridiculous position in trying to defend the fees we have charged. But, as I stated, it was done with the object of as much as possible bringing in a large number of manufacturers in the hope that the smaller manufacturers, with this growing country, would grow larger and larger and eventually we would be able to soak them for a big sum on their larger business. There are some things that have to be remedied, but perhaps we might leave them to subsequent meetings."

Resolutions of Thanks

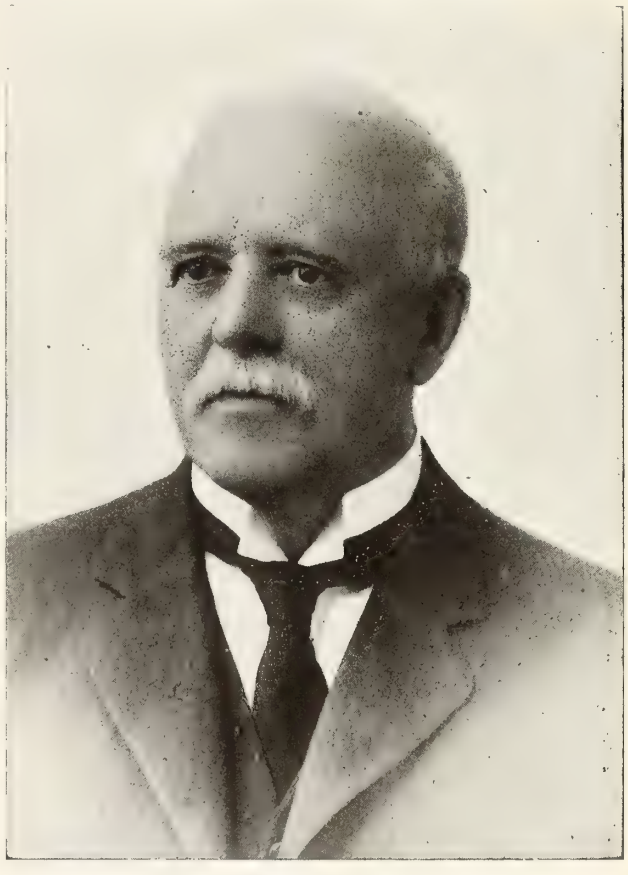
Thanks of the Association Tendered to Various Persons and Organizations for Courtesies

The following resolutions of thanks were carried by the annual general meeting:—

Moved by Mr. T. P. Howard, Montreal, retiring President, seconded by Mr. John R. Shaw, Woodstock, Ont.:

Resolved, that the Canadian Manufacturers' Association, in annual general meeting assembled at Vancouver, B.C., on June 9th, 1920, tender its hearty thanks—

1. To His Worship, the Mayor of Vancouver, for the generous hospitality so kindly extended by the city.
2. To the President, officers and members of the Vancouver Board of Trade for their kindly welcome.
3. To the president, officers and members of the Rotary and Kiwanis Clubs for their hospitality.
4. To the president, officers and members of the Women's Canadian Club, Vancouver, for the delightful entertainment they have tendered to the ladies attending the convention.
5. To the Vancouver, Terminal City and Jericho Country Clubs for extending the privileges of membership.
6. To the transportation companies which have provided such excellent services for our benefit.
7. To the management of the Vancouver Hotel for their courtesy and for the consideration shown for the comfort of the delegates.
8. To the Canadian Press, Limited, for the careful arrangements made in regard to the distribution of our reports.
9. To the Press of Vancouver for the full and impartial manner in which they have reported the Convention proceedings.
10. To the Press of Manitoba, Saskatchewan, Alberta and British Columbia for the great amount of valuable information they have published in regard to the Association and industrial development generally.



John F. Ellis,
Barber-Ellis, Limited, Toronto
Who has retired from the position of Treasurer for reasons of health

11. To the mayors of the following cities, which entertained us so well en route to the Convention: Winnipeg, Brandon, Regina, Moose Jaw, Medicine Hat, Lethbridge, Calgary and Edmonton.
12. To the chairman, officers and members of the British Columbia Division for their generous entertainment and for the excellent arrangements that have contributed so much to the success of this meeting.

Led by Mr. F. W. Stewart, the members present gave three cheers for Mr. J. B. Thomson, Chairman of the British Columbia Division.

MR. J. B. THOMSON: "Gentlemen, I appreciate very much the way you have shown your appreciation of what we have done, because it was only our duty and our privilege, and the happiness, I think, has probably been more ours than yours." (Applause.)

From Our Gallery of Excursion Snap Shots



Music

Pipe band welcoming excursionists on arrival at Lethbridge; there was music all along the route of the excursion



And Oratory

Listening to speeches of welcome in Riverside Park, Medicine Hat, the Oshawa delegation in the foreground

Resolutions Adopted by Annual Meeting

Important Declarations are Made With Regard to a Tariff Board, Imperial Preferential Tariffs, Scientific Research, Cable Service, Metric System and Several Other Matters Affecting Business

FOLLOWING the election of officers, the Nominating and Resolutions Committee submitted for the consideration of the meeting six resolutions as follows:—

1. Tariff Board

Whereas, demands are made at frequent intervals by various sections of the Canadian people for radical changes in the Canadian Customs Tariff; and

Whereas, such demands prevent the determination of the settled policy that is necessary for the development of industry and trade, cause depression in business and employment and imperil invested capital; and

Whereas, it is of vital importance that all industry should have reasonable assurance of stable conditions which will not be adversely and suddenly disturbed by unexpected and imperfectly considered tariff legislation;

Therefore, be it resolved, that the Canadian Manufacturers Association, in annual meeting assembled in Vancouver, on June 9th, 1920, respectfully urge the Dominion Government to appoint a permanent Tariff Board, acting in an advisory capacity to the Government, which will make a scientific study of the Canadian Customs Tariff and the tariffs of other countries with whose products Canadian producers are forced to compete, familiarize itself with costs of production at home and abroad, investigate the nature and probable national effect of all requests for tariff changes, and endeavor to frame a tariff that will serve the best interest of Canada, and thus assure the harmonious and all-round development of the country.

2. Imperial Preferential Tariffs

Whereas, Canada was the pioneer amongst British countries in providing customs tariff preferences for imports of British products; and

Whereas, the policy of customs preferences, designed to develop and consolidate Imperial ties of sentiment and trade, is now finding favor with other British countries, and is being advocated by them; and

Whereas, the British tariff preferences provided by the Dominion of Canada are more extensive than the preferences provided in the fiscal policy of any other British country;

Be it therefore resolved, that the Canadian Manufacturers Association, in annual meeting assembled in Vancouver, on June 9th, 1920, earnestly petition the Dominion Government to exercise its influence to hasten the adoption throughout the Empire of substantial customs preferences for Empire products, corresponding to the preferences now provided in the customs tariff of Canada.

3. Franco-Canadian Customs Tariff

Whereas, the Franco-Canadian Customs Tariff Convention will terminate about June 19th, 1920; and

Whereas, it is highly desirable that the friendly trade relations between France and Canada should be improved by a new Custom Convention, whereby direct shipping may be promoted and French markets opened which, owing to the high general customs duties of France, would otherwise remain closed against numerous Canadian products, both agricultural and manufacturing, and on the other hand desirable markets may be opened in Canada for various French products not made or produced in Canada;

Be it therefore resolved, that the Canadian Manufacturers Association, in annual meeting assembled in Vancouver, on June 9th, 1920, earnestly petition the Dominion Government to negotiate a new Franco-Canadian Customs Tariff Convention as soon as conditions become opportune.

4. Scientific Research

Whereas, the Special Committee appointed by the Dominion Government to consider the development in Canada of Scientific Research, has made the following recommendations to Parliament at the present session:—

1. That a National Research Institute for Canada, endowed with the functions and of the character indicated in the foregoing, be established in the vicinity of Ottawa, on a site fifty acres in area, of easy access and conveniently located for water, gas and electric power supply.
2. That the first building to be erected for the institute should be of the best modern construction suitable for laboratory work, and of such dimensions as to provide accommodation for some years to come.

3. That there be appropriated by Parliament $500,000 for the purchase of the site and the construction of building; $100,000 for the scientific equipment of the institute, and $50,000 for salaries and maintenance during the first year of its operation.
4. That legislation be enacted at this session to provide for the establishment of this National Research Institute and the government of the same."

Therefore, be it resolved, that the Canadian Manufacturers Association, in annual general meeting assembled at Vancouver, B.C., on June 9th, 1920, endorse the above recommendation of the Special Committee and urge the Dominion Government to give effect to this recommendation as soon as possible, and urge that the Government provide for research work in the various provinces which will be related to the work of the central institute at Ottawa.

5. Cable Service

Whereas, the cable service from Canada to various countries of the world is far from satisfactory at the present time, owing to delays and other causes;

And whereas, prompt and efficient cable service is absolutely necessary for the transaction of modern business;

Be it therefore resolved, that the Canadian Manufacturers Association, in annual meeting assembled at Vancouver, B.C., on June 9th, 1920, request the Executive Council to take the necessary steps to ascertain what can be done to improve the cable service from Canada to various countries and to co-operate with the Government and commercial organizations in conducting such investigation.

6. Metric System

Whereas, the advocates of the Metric System of Weights and Measures are making strenuous attempts to substitute the Metric System for our present system;

And whereas, the Metric System has not been adopted by the United States, Great Britain and many other leading commercial countries;

And whereas, any change or any suggestion of a change in our system of weights and measures would seriously interfere with production, which is so essential at the present time;

Be it therefore resolved, that the Canadian Manufacturers Association, in annual meeting assembled at Vancouver, on June 9th, 1920, record its determination to oppose any attempt to substitute the Metric System of weights and measures for the present system in use in Canada.

Resolutions Adopted

It was moved by Mr. W. H. Miner, Montreal, seconded by Mr. C. G. Robson, Edmonton, that the report of the Resolutions Committee be adopted. This was carried.

Other Resolutions

Three other resolutions, forwarded by the British Columbia Division, were next considered and dealt with separately. The first, moved by Mr. J. O. Cameron, Victoria, and seconded by Mr. Edwin Tomlin, Victoria, dealt with the question of arbitraries on lumber shipments from Vancouver Island. It read as follows:—

Whereas, sawmills located on Vancouver Island are charged 1½ cents extra freight on lumber products shipped to Prairie points above Vancouver rates;

And whereas, it is the sense of this convention that said differential so charged constitutes a discrimination against the lumber industry on Vancouver Island, and should be discontinued;

Be it therefore resolved, that the Canadian Manufacturers Association, in annual meeting assembled in Vancouver, B.C., on June 9th, 1920, instruct the Executive Council to investigate the situation and endeavor to secure relief.

The motion having been put by the President, was declared carried.

Country of Origin Regulations

The second resolution, moved by Mr. E. W. Hamber, Vancouver, and seconded by Mr. Hugh MacLaren, Vancouver, dealt with the country of origin regulations. It also was carried. It read as follows:—

Whereas, the bulk of the world's manufactured goods or the raw materials forming the basis of same, are produced in the British Empire;

And whereas, the furtherance of this policy will constitute a temptation to foreign manufacturers to take advantage of the preferential treatment accorded imports from different parts of the Empire;

Be it therefore resolved, that the Canadian Manufacturers Association, in annual meeting assembled at Vancouver, B.C., on June 9th, 1920, request the Government of Canada to supplement the present declaration of country of origin which accompanies all imports, by the requirement that such imports, particularly of manufactured goods, be marked or have affixed to them in an unmistakable manner an indication to the ultimate consumer of the country in which they were manufactured.

Trade Commissioners' Service

The third resolution, moved by Mr. F. E. Burke, seconded by Mr. O. Phillips, was also carried without discussion. It was worded as follows:—

Whereas, the Department of Trade and Commerce of Canada maintains in various parts of the world offices in charge of trade commissioners, whose chief duty it is to assist in building up the Canadian export trade;

And whereas, we believe that the maintenance of permanent exhibits of samples of Canadian products would be of great assistance to the trade commissioners in familiarizing purchasers abroad with this country's products;

And whereas, we believe that at the present time full advantage in this respect is not being taken of the possibilities of the trade commissioner service on behalf of Canadian manufacturers;

Therefore be it resolved, that the Canadian Manufacturers Association, in annual meeting assembled at Vancouver, B.C., on June 9th, 1920, request the Department of Trade and Commerce to provide trade commissioners at the earliest possible moment with facilities for the proper display of exhibits of such Canadian manufactured goods as there may be a market for in the various countries to which the trade commissioners are accredited;

And further, that this Association, on behalf of its members, undertakes to do everything possible to assist the Government in securing and shipping the necessary exhibits.

The Sale Tax

A resolution, moved by Mr. F. W. Stewart, Montreal, and seconded by Mr. Ed. Burns, Toronto, was next presented, as follows:—

That whereas, the tax on articles, as collected from the consumer through the retail merchants, is liable to have a detrimental effect on the sale of such articles taxed;

And whereas, the manufacturers' articles will unquestionably be seriously affected by the non-sale of such articles;

And whereas, the operation of these factories under such conditions will be so affected as to necessitate running on short time, thereby throwing thousands of employees out of work, which would be a very serious condition to create;

Be it resolved, that the Canadian Manufacturers Association, in annual general meeting assembled in Vancouver, June 9th, 1920, ask that the Federal Government be requested to give the enforcement of these taxes the most careful consideration before doing so, and if possible to so amend the bill that the revenue which will be derived from this source be derived in such a manner as will assure the continuance of prosperous business conditions throughout Canada, and so affect the business of the country to as small a degree as possible.

Should Have Constructive Policy

MR. THOS. RODEN (Toronto): "I am heartily in sympathy with the sentiment expressed in that resolution, but I think it has not been properly prepared. We are, as you know, manufacturers of a luxury, and I think before we criticize we should have some constructive policy to suggest to the Government in lieu of their present methods of taxation. I would like that resolution referred to the Executive for further consideration. I think the principle should be adopted or accepted by the meeting or convention assembled here, but the text of the memorial might be left to the Executive to word in such manner that it would be a recommendation of some practical application.

"In our trade we had a meeting with the Government only two weeks ago, and recommended to them that in lieu of the variable taxes they are imposing upon us as manufacturers of jewelry, glassware and so forth, that a general over-tax might be put on as a substitute, which would simplify the work of the storekeepers and eliminate a great deal of extra expense.

"I think points of that kind should be more definitely explained in any memorial we might present to the Government, so that they would recognize we have given intelligent consideration to the problem, not only of the people involved in collecting the tax, but also to those of the Government in checking them up. To-day the operation of this tax will be faced with a tremendous amount of evasion which it will be impossible for any government to check up or even for the person to check their own business. It is left in the hands of the clerks, who, if they are friendly to their customers, will try in every possible way to avoid this tax. That is one of the psychological conditions that always develop under direct taxation. Before we present any memorial to the Government, it should be a memorial stating our case and recommending some intelligent method of remedying the conditions."

MR. T. P. HOWARD: "In regard to this resolution which has just been written out, I would suggest that we pass it in the main as it stands, subject to being revised by Mr. Stewart and his seconder in conjunction with the Resolutions Committee.'

MR. J. H. SHERRARD (Montreal): "I entirely agree with Mr. Roden. I think before passing this there should be some attempt made to instruct the Committee who will deal with it to make definite recommendations. If there is one association in all Canada that should avoid making negative recommendations, it is the Canadian Manufacturers Association. (Applause.) A constructive body surely should be able to make some recommendation that is positive, and I do feel that the recommendations of the Association have perhaps not received as much consideration at Ottawa as they deserve, because they have been largely negative. Mr. Roden suggests a re-sale tax. I have heard it estimated by men who know how to get at these figures that if a one per cent. tax was made on all sales outside of farmers' sales, which could not be collected probably, it would amount to a little over $150,000,000 a year to the Canadian Treasury. I don't know whether those figures are right, but I think they are nearly so, and I think the Canadian Manufacturers Association should undertake to make constructive recommendations when they make any recommendations."

MR. F. W. STEWART (Montreal): "In drafting the resolution very roughly it was with the idea of bringing the matter to the attention of the members assembled here. I did not wish to make any recommendation as to what the Government should do to offset the revenue coming in from this particular tax. It was with the idea of bringing the matter before the members here to-day and it was with the idea in mind of bringing to the attention of the Government how serious the situation is, so far as I can gather. I am only too delighted to hear the remarks of Mr. Roden and Mr. Sherrard this morning in regard to making a memorial of a definite kind to the Government in regard to possibly collecting the revenue which they desire through another source. I did not know it would be the desire of this meeting to go that far, and I am very gratified indeed that there are those who consider we should do so, because I am absolutely of that opinion myself. In coming through from Toronto to Vancouver, in the different places where we have stopped from time to time, I have made it my business to consult the merchants, and I find that the imposition of this tax is having a very serious effect on business all the time, and the question in my mind has been whether it is going to adjust itself automatically, and if it does, how long will it take to so adjust itself. If that length of time is extended for any period, I am of the opinion that it is going to force a great many merchants out of business. That is a situation which I think we should discuss and consider very seriously because, if that is going to take place, it is going to disrupt the industrial conditions of the whole country from coast to coast. I am only too glad as far as I am concerned, and I believe the seconder of the resolution will agree with me, that the suggestion which has been made by Mr. Roden and confirmed by Mr. Sherrard should be adopted by this meeting."

THE PRESIDENT: "To get this properly before the Association, by-law 31 on page 11 says that every resolution before being presented to the annual meeting must be submitted to the Resolutions Committee. In view of the importance of this matter and the suggestion of Mr. Howard would it not be well to refer this to the Resolutions Committee so that it may be taken up by them?"

MR. F. W. STEWART: "That was my intention when I drafted the resolution."

The suggestion of the President was adopted.

Business Profits War Tax

MR. J. R. SHAW (Woodstock): "I have a resolution which was before the Resolutions Committee and I wish to speak to it just for a moment. It is in respect to the business profits war tax. You are all aware that there were practically two classes of industries during the war period, or possibly three, those that suffered very, very much by decrease in volume of business and by debits to their profit and loss account for a series of years, those who were engaged in war work and made large profits, and those who engaged in munitions.

"The resolution introduced by the Minister of Finance makes some change in respect to the Business War Tax by increasing the percentage that the concern is allowed to take from seven to ten per cent., but it still handicaps those businesses which lost money during the war. The output of a number of these businesses was decreased from a half to a third, and consequently when the war was over, their businesses jumping tremendously, they made very substantial profits during this year and the year previous, and go into the excess war profits class. My contention is, and it is that of every man whom I have ever spoken to about it, that before the amount is arrived at subject to taxation that the debit to profit and loss should first be taken care of. If a business has a debit to profit and loss, it goes without saying that business has not paid dividends, because dividends can only be paid out of profits; and it seems to me a monstrous thing that a Government should tax a business which has not been able to pay its shareholders anything for four or five years. I have, therefore, with the approval

of the Resolutions Committee, to move the following resolution:—

Whereas section 1 of the resolution moved in Parliament by the Finance Minister in respect to the Business War Profit Tax reads as follows: "That the profits earned in any business during any accounting period ending in the year 1920, which do not exceed ten per cent. per annum upon the capital employed in such business, shall be exempt from the taxes prescribed by the act."

Resolved, that the Canadian Manufacturers Association, in annual meeting assembled, respectfully suggest to Parliament that said section be amended by adding thereto the following words after the word "Act": "but that in any business where there exists a debit balance to profit and loss account, this debit balance shall be deducted from the net earnings for the period and that the remainder shall be the amount on which the tax shall be paid."

I move that resolution, seconded by Mr. T. P. Howard.

The PRESIDENT put the motion which, on a vote having been taken, was declared carried.

The Late K. W. Blackwell

Vice-President of Canadian Steel Foundries, Limited, Passed Away in Montreal

A man prominent in the Canadian steel industry passed away in Montreal on June 11 in the person of Mr. Kennet William Blackwell, vice-president of Canadian Steel Foundries, Limited, and director of the Canadian Car & Foundry Co., Limited, the Pratt & Latchworth Co., Limited, and several other companies. Mr. Blackwell was a son of the late Thomas E. Blackwell, first general manager of the Grand Trunk Railway Co. He was born in England, but came to Canada early in life. Educated at Bishop's College School, Lennoxville, he was apprenticed as a mechanical engineer in the G.T.R. shops, Point St. Charles. He was later appointed mechanical superintendent of the G.T.R., with headquarters at Belleville, and became successively mechanical superintendent of the Chicago and Grand Trunk and the C.P.R. In 1882 he went into the manufacturing business under his own name, making railway car springs, etc. This business eventually became the Montreal Steel Works, Limited, of which he was president and managing director. The company was absolved by the Canadian Car & Foundry Co. under the name of the Canadian Steel Foundries, Limited. Among other interests, Mr. Blackwell was vice-president of the Merchants' Bank of Canada. He was a past president of the Canadian Society of Civil Engineers and a prominent figure in building up the steel casting industry in Canada.



Prominent Figures at the Convention, through the eyes of the Cartoonist of the "Vancouver Sun"

With the C.M.A. Excursionists



Group of C.M.A. Ladies at Capilino

In the front row stand Mrs. J. E. Walsh, Mrs. J. S. McKinnon and Mrs. S. R. Parsons



All Aboard for Howe Sound

The C.M.A. party on board the S.S. Princess Patricia just before starting on a three-hour cruise

Canada's Trade Prospects With the Orient*

A Market of Enormous Potentialities Awaits the Canadian Merchant and Manufacturer in China and Japan — The Centre of the World's Commerce Moving Westward to the Pacific Coast — Valuable Experiences in Foreign Trade

By CAPTAIN ROBERT DOLLAR

IT is a great pleasure to see so many here from the Eastern Provinces. I claim some connection with the Eastern Provinces myself. When I was a boy and up to the time I was a young man, I worked in the Ottawa Valley, but like a good many more I learned there of what Horace Greeley told us, "Go West, young man, go West," and I started for the West, and I kept going until I got east again. I got as far as Singapore. Then I turned back.

The subject which has been given me is foreign trade with the Far East. The trend of commerce started away in the Far East, and it has been coming West ever since. It started in Persia and then went to Phoenicia, then to the Roman Empire, then to Spain, and finally into the Atlantic, centring in Great Britain, in London, the commercial centre. I am going to make a statement, and that is that the great centre of the world's commerce is going to be on this Pacific Ocean. That requires a good deal of explanation or else some of you might laugh at such a suggestion. But what would you have thought before the time of Columbus when the Phoenicians had the centre of the world's commerce in the Mediterranean if some one there had prophesied that the centre of the world's commerce was going to go into the Atlantic. They would have locked him up for a lunatic because there was nothing discovered on this side of the Atlantic at that time. Now, when I make the statement that the centre of the world's commerce is going to be on the Pacific Ocean, it does not seem quite so strange as it would without that explanation.

Foreign Trade a Necessity

We all admit that foreign trade is a necessity to this or any other nation. No nation has ever become truly great without foreign commerce. Canada is especially interested in this, and I am glad to see so many from the Eastern Provinces here taking an interest in this subject. I just came from a Convention that was held in San Francisco, where 2,500 of the biggest merchants, manufacturers and bankers of the United States met to consider this subject primarily, the question of the Pacific Ocean trade. It was something new to a great many of them. They had always been thinking of the Atlantic trade from eastern cities, but they came out here and got their eyes open to the Pacific coast on this side of the continent.

Here is something I don't like to tell you, but I am going to—I am not going to mince matters in what I am going to say. Some things I am going to say will be very encouraging and some very discouraging. I looked up the statistics of what our ships have carried into the port of Vancouver, and for the purpose of seeing where those products were going. I discovered that two per cent. of all the tonnage that we brought into Vancouver went to Eastern Provinces, 16 per cent. of it was landed here in Vancouver, some of that found its way to the Eastern Provinces, but the most of it found its way to the United States. I learned that 82 per cent. of what we brought in went direct to the United States. Now, gentlemen, that is not right. You see what dangerous ground we are treading on. Supposing an embargo was declared against this country by the United States, how long would our vessels run if you give them 82 per cent. of the cargo we are carrying? So it is up to the merchants of Canada to do something.

I will tell you another thing that is worse than that. I have traced a good deal of that 82 per cent. to see where it has been going. It has been going to Chicago, Cleveland and Buffalo, and I am blessed if a good deal of it didn't find its way by export into Canada. That is, instead of the Canadian merchant going to the source of supply and buying what he required of raw material for his manufactures, he allowed other merchants to go over there and buy it and bring it into the United States, and then he went to the United States and bought it instead of going directly to the source of supply in the Far East and bringing the freight direct to the factories in Canada. I think there is food for thought in that, and I hope you will take that into consideration. I am not going to tell you anything about what I have read in books, or what someone else has told me. I am going to tell you what I have learned by the hard knocks of personal experience.

An Analysis of Goods Imported

Now, all are interested in foreign trade. I am sure the working men are. What are the farmers going to do with their surplus products if they do not sell to foreigners? As manufacturers you all understand that. Your bankers also, and merchants, and especially shipowners will appreciate it.

In looking over the commodities that came in two of our steamers recently from the Far East I found there were 153 different commodities coming in here. On those same steamers going outward I found that there were 304 different commodities. Now there is no person in this room that is not directly interested in some of those commodities, either coming in or going out. So that every one of you are interested in this subject.

That ships are a necessity we all know, but a ship must have a return cargo. If it doesn't, you know what happens —you will pay double freight; but if a ship can get a cargo in and a cargo out, then they can carry commodities very much cheaper than if they only get cargoes one way. Just to give you an idea of how that works out, before the war we were shipping a good deal of lumber from the mills here to the eastern states, and we couldn't get any cargo back here. What did we do? We took and engaged cargoes of either coal or kerosene—case oil principally was the cargo—and took those to the Far East to Singapore, Manila and Batavia, and got cargoes there to bring here to Vancouver. So that our ships, every time they took a cargo of lumber to the eastern states, went completely around the world, but they were loaded. Therefore, we were able to carry all the commodities we carried at a lower rate of freight.

True Commerce to Buy and Sell

We must buy and sell. True commerce is to buy and sell. Some years ago I was trying to make a bargain with the Chinese Government to purchase a lot of pig iron and iron

*An address delivered by Captain Dollar at the first session of the Annual General Meeting, Vancouver, June 7, 1920.

ore from them. We came to a deadlock. You know we fellows are not quite able to deal with the Chinese; they are just a little bit smarter than we are; and to try to close the thing up the Government officials, headed by the ministry, gave me a banquet, and before we went into the banquet they said, "We will go in a private room and see if we can't get together." I told them that unless they could reduce the price it would be impossible. They said, "We can't reduce the price." I said, "Then it is no use talking." But as we were going to go out I gave them a parting shot—sometimes you manage to say the right thing at the right time, and sometimes you don't, but that time I happened to do it. I said, "I have brought over a great deal of commodities to your country here and I have never taken a dollar of Chinese money out of it. I have always brought commodities. We are bringing more now than we can buy, and the object I had in view was that instead of taking your gold out of your country I wanted to take commodities." The Premier said, "Mr. Dollar, sit down." They all sat down, and of course, I won't tell you what they said because I didn't understand a word they were saying, but finally he said to me, "Mr. Dollar, we have tried to frame a proper answer to that proposition that you put last, and we have totally failed, and we are going to give you the iron and iron ore at your own price."

Of course, if we can't bring the commodities, then we have got to bring the gold. So that when we take Canadian manufactured goods from here and take them into a foreign country, we either bring gold or bring other commodities, and it is far better to bring other commodities than gold because then it gives the raw material for manufacturing.

Six Months' Production Adequate

I suppose the same condition probably exists in Canada as it does in the United States. The Secretary of Commerce stated recently that the factories in the United States can produce all the product that would be required and consumed in the United States in six months every year. Therefore six months products of the factory, if they are kept running full, have got to go foreign from the United States. I suppose probably it is about the same with you, gentlemen. If you want to increase the output of your factory you can't increase it beyond the domestic requirements, but you can increase it indefinitely if you ship foreign.

A good many people have a habit of saying, Well, the Government should do it. The Government can help a little, but they can do very very little. We have got to do it ourselves. To illustrate that, on one of our ships there was a fellow who was considerable of a bully; he had beaten up about everyone he tackled until he came to one man, and he was a little bit afraid of him, and he reserved him to the last. He said, I will go in the ship and take off my clothes and come out and fight him, and when he got in there he thought he would pray to the Lord, and he said, "Now, Lord, this is the first time I have ever prayed to you, and it will be the last time, and he says, I don't ask any favors of you, don't want any, but all I ask is, don't you help the other fellow, and it will surprise you how quick I will do him up." (Laughter.) So if the Government would only leave us fellows alone, we don't need much help (it is good to have a little help), and not attempt to tie our hands, we will be like the sailor, we will do the job.

We are having a great deal of trouble about cables. I think that your organization will do a great deal of service if you could help to get better service from the cables. It is almost ridiculous that a cable to the Far East takes two weeks to go and two weeks to come back. Something should be done about that. They are taking action in the United States, and your action here would help a good deal. It makes it almost impossible to do business.

Now, all foreign trade is acceptable, and I don't wish to depreciate any foreign trade that is going to European nations or to South or Central America, but I are going to talk more particularly of the trade across the Pacific Ocean. This Pacific coast here about 75 years ago, did any of you ever think what it was? It was a wilderness; there was nothing here but Indians. Now, when you come to look at it, all along this coast and see what has been accomplished in that time, you can see the grit and get-up of the people that have come over to this western coast. And you are facing about a billion people when you look out on the Pacific. You are on the shores of the Pacific and on the other side of it, there is about a billion people, and you can see what commerce you eastern gentlemen are getting direct from this billion of people. I just want to impress that on you. It might be said, Well, they have an old civilization there, what can we do there? To be sure the civilization was as in the time of Christ; it is the same in the interior of China to-day, but a revolution is taking place from the old to the new.

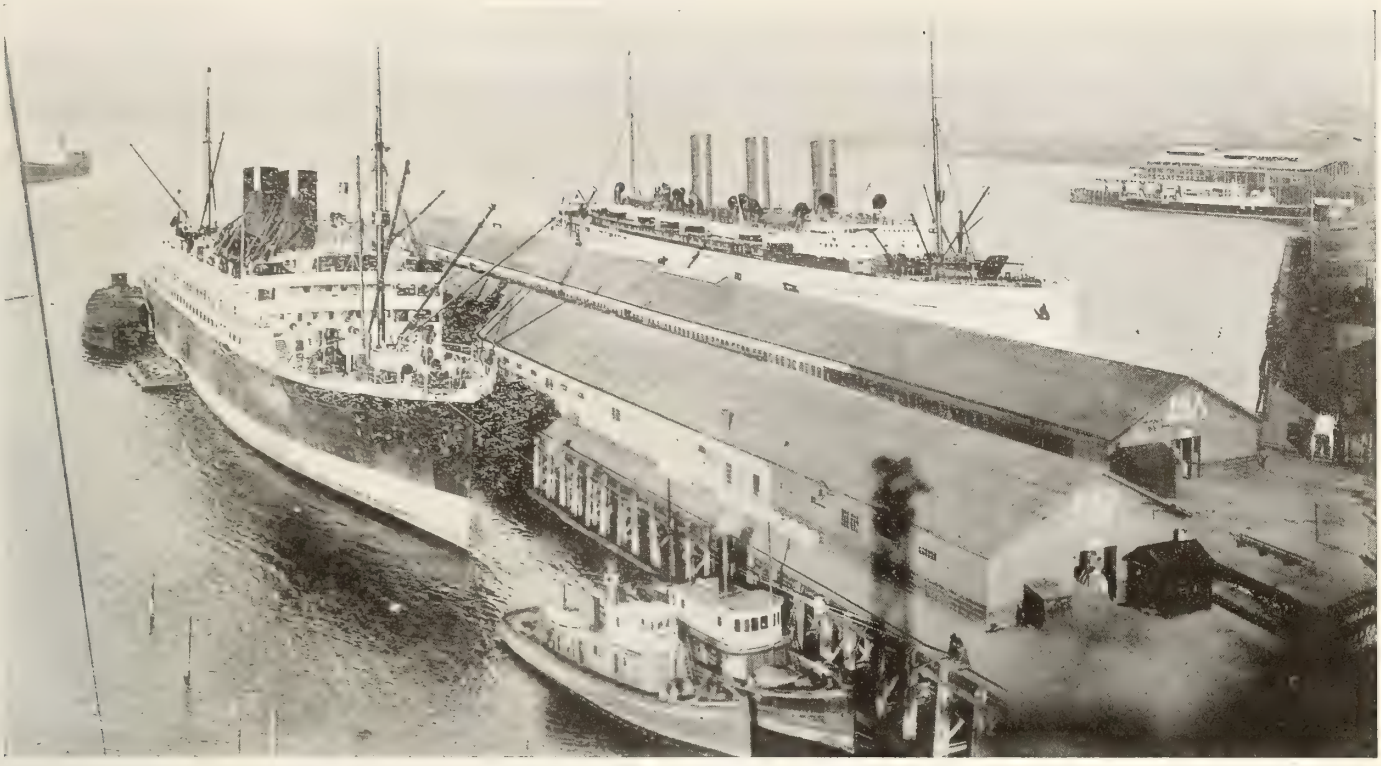
Coming Centre of World's Trade.

I said that the centre of the world's commerce would be transferred to the Pacific, and I don't think it will be so long. But to convince you of that fact it will be necessary for me to give you some reasons, and I will try and give you some. Fifty-three years ago the first steamer crossed the Pacific. I am not going to bother you with many figures, but I would like if you would keep this in your mind. Twenty-six years ago 77,000 tons of freight were carried from this coast to the Asiatic coast, and the freight that went westward-bound was 7,000 tons. That is, we exported only from this whole coast here 7,000 tons 26 years ago. Those are the figures from the Government statistics, and they are correct. Twenty years ago—a radical change had taken place inside of six years—there were 237,000 tons of shipping engaged on this coast at that time. That was when it commenced. In 1919 the entrance and clearances on this coast were 39,000,000 tons. I wish you would try and keep that in your mind. Twenty-six years ago there were 77,000 tons; less than 80,000 tons was the entire tonnage; and in 1919 the clearances of the ships were 39,000,000 tons, and that did not include any shipping that went direct from the Far East and through the Panama Canal. That is clearances on this coast here.

Possibilities of Future Growth

Now some of you that are good at figures—it gets beyond me; I can't figure; I don't know how to figure; but if you would figure what the commerce would be in 20 years hence if you figure on the same ratio; I say it is beyond me, I haven't got head enough for that, but you figure out and see, if the same ratio only continues, is not my statement pretty near right? Why, the Atlantic wouldn't be in it. There is no reason that it shouldn't continue; there is every reason why it should increase instead of decrease. Therefore I say to you manufacturers that are manufacturing in the eastern provinces, isn't it about time you were coming over here and starting manufacturing here to be in the swim when all this commerce is going? (Applause.) If you want to get into this business you can, but I want to tell you, gentlemen, there is nobody I know of that is going to present it to you on a silver platter; you have got to go after it.

Just to give you an idea what ridiculous efforts are being made to get trade over there, I see tons and tons of literature over in China (I have made 20 odd trips to China, and I know what I am talking about), there are tons and tons of catalogues and literature in the various consulates there



A Glimpse of Vancouver Shipping

An every-day scene along the waterfront of Vancouver, showing trans-pacific liners at the Canadian Pacific Railway Company's Pier A.

printed in the English language for the Chinese. What would you think of the Chinese trying to introduce their wares over here and they flooded Canada with pamphlets in the Chinese language? (Laughter.)

Should Know the Country.

Another thing it will be well to get familiar with and study the conditions over there. I was talking in the Chamber of Commerce of Seattle, and I told them I had attended a meeting of the Chamber of Commerce at Hankow, which is the geographical centre of China, and I tried to get them to send a representation over to the Alaska-Yukon Exposition they were going to hold there, and there was a venerable old gentleman got up, and what he said was translated to me, and he said, Where is that place that you call Seattle? And when I said that, there was a titter went all around the room, as much as to say, any man that don't know where Seattle is he doesn't amount to very much. I said that gentleman didn't happen to come from Hankow, he happened to come from the city right across. It was a walled city, about 55 miles around, and about 750,000 people in it, and it was a capital, and I said, Now, Mr. Chairman, I will ask if some of you Seattle men who are well posted here will just hold up your hands that know the name of that city. There wasn't a hand went up. I went on with my talk, but when I got through a gentleman got up in the hall, and said, Mr. Chairman, I don't propose to let Mr. Dollar leave this hall until he tells us the name of that blooming city. It is the city of Wuchong, the capital of Hupeh Province. It shows how little we know about even the large cities of China.

While I shall talk more particularly about China, yet I will say a few words about Japan. It has about 90,000,000 of people now, and Commodore Perry opened the ports of Japan to world's commerce 66 years ago. But on the 50th anniversary, 15 years ago now, I happened to be in one of the ports that was opened, and they had a big celebration. There were only two of us English speaking people in the town, and there was a big crowd of Japanese there. In the centre of the largest street they had a great big oil-painting of Commodore Perry shaking hands with the Mikado. They didn't shake hands much because he threatened to blow them off the face of the island. It was rather a joke to see that. We went up into a park at quite an elevation above the town, and there they had a representation of a steamer, a very good representation, made of canvas, and there was an inscription on it, and I asked a Japanese friend to interpret it to me, and it was this: "Thirty-five years ago this was our entire steam marine, that we had at that time, and this vessel was presented to the Mikado by Queen Victoria. To show you what improvement we have made in those few years, please turn around." You turned around, and you looked down the hillside, and there was the great battleship fleet of Japan that in a few days or few months after annihilated the great Russian fleet. I never saw a better illustration than that of the progress that Japan had made in that time. To me it was wonderful.

To Get Chinese Trade.

Now to get trade in China you have got to go for it. I want to tell you right now it is a man's job, don't send a boy before yourself. The trade can be got there, it is there if you want it, and I want to tell you good people of Canada that you are going to want it, and want it so darned bad that you won't know which way to turn. There are at least 400,000,000 people there, and more; I think it is nearer 500,000,000. The possibilities of business over there are completely beyond my comprehension, and I have gone pretty much over China and seen from year to year the progress that has been made and the development that has been made, and it is completely beyond me. I give it up. Nearly three years ago I bought a piece of land in Shanghai, and I built a wharf and warehouse, and I told my son, Now, if we build this wharf this way and the warehouse there, that will do us for at least five

years, probably ten. I went back there and my son said, Father, you didn't know what you were talking about. I have doubled the size of the wharf and warehouse, and still it is too small. That shows what little I knew. I thought I did know what I was talking about because I had made a study, but it goes clean beyond my comprehension the way this business is increasing over there.

The purchasing power of the people will have to be increased over there, and that is being accomplished quite rapidly. The Chinese have declared a boycott against the Japanese, and they have been short of a good many manufactured articles, and they have started to manufacture their own goods over there to a very great extent, and that is increasing the purchasing power of their people to a very great extent. There are fifteen large cotton mills which have been erected during the last two years in China that I know of. Fifty per cent. of the entire population of China goes barefooted, not from choice, but from necessity, and you can just imagine what commerce would be created if even their own people could get better clothing, and every one of them shoes and stockings.

To give you a little better illustration of the progress that is being made over there, the post office returns come nearer telling the truth, I think, than anything else. Seventeen years ago the post office handled 20,000,000 pieces of mail. In 1909 they handled a little over 700,000,000 pieces of mail. That gives you a better idea probably than anything else I can say. Then seven or eight years ago Hong Kong was the second seaport in the world; it was next to London. It has gone back now; I think it is about fourth place.

China is the second largest buyer of cotton cloth in the whole world. What we are doing now might interest you a little bit. We are carrying over a great deal of raw cotton to Japan, and we are carrying back manufactured cotton cloth and landing it right here. We are carrying the raw cotton over and bringing cotton cloth back. I should not kick, I am getting the freight both ways, but I am just telling you. Then they produce all the food their people can eat—four or five hundred millions of people—and they have some to spare. All the minerals you can think of are there, and they are in abundance. The United States have been getting more oil from the Asiatic coast than from any other part of the world during the war. China produces half the antimony that is produced in the whole world. We are bringing antimony in our ships over to this country.

When I have told you about all this, don't think the whole thing has been monopolized. There is lots of room over there for you, lots of it, and you will not crowd anyone out, but if you go over there you will develop a business. The business is there for the developing. When we started running here to Vancouver, the C.P.R. were running the only steamship line that was running. You would have thought when we began coming in here in competition with them we would have taken some of their freight from them. We never took one ton of freight from the Canadian Pacific. Their ships are running full and ours are running full. We developed the trade we are getting, and you can do the same if you go over there. (Applause.)

I spoke to you about Hankow. It is on the Yangtse River. One-eighth of the human family live on that mighty river and its tributaries. That is almost incredible, but it is a fact. Just to give you an idea of it, the Province of Szechwan is about 1,700 miles from the ocean, and we have just started to run a couple of steamers through the gorges or rapids of the river to Chungking, which is 1,700 miles from the ocean. That province has 70,000,000 of people, and that is the only communication they have with the outer world, and our ships only carry about 600 tons of freight, so that you can imagine the prospect there would be there. They are not living in poverty by any means; there are lots of rich people, and they manufacture and produce everything that they use. They drilled for oil there before the Christian era; and they have been evaporating salt with petroleum for centuries and centuries before the Christian era.

Let me just say a word about myself. I think that there is about 20 years more work in me yet. (Applause.) I am going to give that work to the developing of that commerce. I am only 76 years old, and I think you will say I am right when I say there is 20 years' more work in me. So I think that should be some encouragement to some of you gentlemen to go to it and get that trade. I am not trying to sell you a gold brick, I am not asking you to go there and do anything but what I have done myself, and I only hope you will have as much success as I have had, and not any more, and you will be a very happy lot of people. (Applause.)

Vote of Thanks to Captain Dollar

At the conclusion of Captain Dollar's address, Mr. F. W. Stewart, Montreal, moved a hearty vote of thanks, and suggested that the address be printed in INDUSTRIAL CANADA.

From Our Gallery of Convention Snap Shots



Thomas Roden
Roden Bros., Limited, Toronto
The Association's New Treasurer



Brig.-Gen. H. F. McDonald
General Manager, Alberta Industrial Development Association



W. H. Miner
Miner Rubber Co., Limited, Granby, P.Q.

Policy to be Followed in the Coming Year*

The Development of Export Trade to be Vigorously Promoted—The All-Round Development of Canada's Resources to be Prosecuted—Men of the Association to Measure up to the Requirements of the Day

By JOHN S. McKINNON

President, 1920-21, Canadian Manufacturers' Association

WE have heard during the last few days something of the work that has been done by the Canadian Manufacturers Association during the past year. I would like for a few minutes to give you some little idea of the policy that will be followed during the coming year. It is impossible to enunciate at this time the full policy of the Association, but there are a few items that I would like to draw to your attention. One of the matters with which the Executive will busy itself this year is the development of the export trade of Canada. (Applause.) This Association extends from the Atlantic to the Pacific, and, while the Atlantic seaports will have their full share of attention, I can assure you gentlemen that the Pacific ports will come in for their due share as well. We must have trade with other parts of the world. South America demands our attention. We must have a greater Canadian merchant marine, and some of that marine should be built in British Columbia. (Applause.) Matters of new trade routes will be investigated. Inland transportation in Canada has been very well looked after, but I believe that when that freight is brought to the seaboard there is a great lack of facilities. That is a matter that will receive the attention of your Executive. The seaports of this country must be developed, and the port of Vancouver, which seems to be the natural port of the Pacific in Canada, I can assure you, will have extra attention during the coming year. (Applause.)

All-round Development of Canada

The policy to continue the all-round development of Canada will be continued. The national resources of this country must be developed, and that to the highest possible degree. Anything that can be manufactured in this country must be manufactured here, and very little raw material exported. We want the finished product produced in this country. (Hear, hear.) If this is done, greater employment will be found for our people. In order to do this, gentlemen, we must have scientific research and technical education. The result will be a great improvement in the quality of Canadian-made goods.

The Association is not in any manner sectional, but will devote itself to the development of all Canada. It will re-assert the position that it takes that it believes the time has arrived for the appointment of a scientific tariff board in Canada.

This great Province of British Columbia—when we arrived at the border a few days ago a message was received that the latch strings of the province were hanging out, and I can assure you we have found that to be the case. That telegram was reprinted and posted in every car in the train. When we came through these mountains, magnificent in their grandeur, one would think there was the home of the gods where man seemed so insignificant and nature seemed so majestic, and one can well think that the sweet singer of Israel said: "I to the hills will lift mine eyes, from whence doth come mine aid." We hope that the cattle on the thousand hills will be yours; that the valleys will be filled with peace and plenty; that your forests will continue to supply the needs of mankind; that your mines will disclose their hidden secrets; that your rivers will teem with the fish which the world needs so badly, and on this whole Pacific slope the industries will thrive as we would like to see them.

The Race We Sprang From

The scenery of this province is wonderful, A sail on English Bay and up Howe Sound with the hunting dog and the sleeping beauty, and a little further along, overlooking all this and pointing to the Pacific, the lion-guarded gateway to the Orient. (Applause.) It is nothing new if we look out across the Pacific. We all spring from that race, from that tight little island which, in the 15th and 16th centuries, owing to the increase of its population, found that its people were driven over the seas in order to find a source of livelihood, and these days produced a Raleigh, and a Drake and a Cooke, and later a Fraser, a McKenzie and a Strathcona.

In the days that I have mentioned first, in the days of Raleigh, an event took place to which we do not pay, I believe, enough attention because, ladies and gentlemen, it was in those days that the foundation of the great British navy was laid. (Applause.) The men of those days seemed to have the natural gift for colonization and discovery. The reward was that Britain owned and occupied one quarter of the earth's surface. This, as in the past, excited the envy as well as the covetousness of some nations, and four different times the supremacy of the British Navy has been challenged in the last five hundred years. In the 16th century the most powerful monarch in Europe was Philip the Second; he had brought almost every monarch to his feet, but he looked to the north and thought that he would like to conquer England, and so he sent the Spanish Armada, and we know with what result. That was the beginning of Philip's downfall. In the 17th century Holland thought she would challenge the authority of Great Britain upon the seas, and met with a similar fate to Philip. About one hundred years later Napoleon challenged the supremacy of Britain upon the seas, and while he met his absolute defeat upon the field of Waterloo, his power was crushed by the British Navy in the battle of Trafalgar. (Applause.) And then we come down another hundred years or so and what do we find? Great Britain standing for civilization. We find another nation building a navy. In the year 1914, on August 4th, a date that has been written deeply upon the heart of every man and woman of this generation, we find again, for the fourth time, that the British Navy was challenged; and Germany was the assailant at this time upon one side, greed and ambition upon the other; and as Brutus said to Cæsar, "Because he was ambitious, therefore we slew him," so the Allies said to Germany, because of your greed and ambition, therefore you are slain. (Applause.)

Britain has never, upon one occasion, been the aggressor. She has defended her people in every part of the world. She

* Inaugural address of the new president at the annual banquet, Vancouver, June 9, 1920.

has abolished piracy and suppressed the slave trade, she has established freedom and liberty and civilization and always helped the peoples to self-government, showing that it is possible for the greatest autonomy to be given and at the same time strengthening the bonds of union between the Motherland and the Overseas Dominions. The history that I have tried to trace in these few minutes shows the bonds of the great British Empire. Gentlemen, does it not lead up to the natural and logical conclusion that the time is about ripe for an Imperial preference. (Applause.) As our forefathers looked out over the seas, so we stand in this magnificent city of Vancouver and look out upon the Orient, with its unlimited trade, and I believe that the men will be found who will measure up to the occasion, and Canada will get a rightful share and place in that world trade upon the Pacific.

But what of the future? This country wants what is best for the whole of Canada. We have a large country with a small population, and what we require, ladies and gentlemen, at this time, is men and women of faith, men and women of courage, and men and women of vision. I believe the Canadian Manufacturers Association will produce the men that are wanted in that particular line of activity. I believe that they will measure up to all that is expected of them, and we know the difficulties that they were met with when war was declared, and we know how they met them. We know the difficulties they met when peace was declared, and during the period of reconstruction which we have passed and are passing through, and I think they have measured up to everything that could be expected of them. And so, I say, let us have faith in the future of our country, and this above all, "To thine own self be true and it shall follow as the night the day thou canst not then be false to any man." I believe, gentlemen, that we have no difficulty in believing that Canada in the future will take her full share and full place in the nations of the world.

British Columbia's Industrial Position*

Exceptionally Favorable Climatical Conditions—Transportation Facilities and the Progress of the Shipbuilding Industry—The Rapid Development of General Industries in the Province.

By J. B. THOMSON
Chairman, Pacific Division, C.M.A.

I AM going to deal a little with the situation of industry in British Columbia. While comparatively speaking a young man, I have seen a good deal of life in the Far West. It is over thirty years ago since I stepped off a train at New Westminster, with my parents, coming through as a school-boy from Scotland. Since that date I have made my home on the coast in British Columbia. A little better than half that period I have resided in the City of Vancouver, so I can say I have witnessed many changes in that city and in the various towns in British Columbia which I have frequently visited. The spirit of optimism has at all times prevailed in the citizens of this Province. A few pessimists would drift in amongst our population from time to time, but the controlling force being so optimistic for the future quickly assigned them to oblivion by showng them that unless they were there to boost and work for the best interests of British Columbia, their welcome would be much greater in other parts of the world than within the Province of British Columbia.

Industrial Growth in Its Infancy

We are a new province as compared with the eastern provinces, and consequently our industrial life is very much in the class of an infant as compared with the older provinces, such as Ontario and Quebec. Nature has been very profuse in distributing her gifts and has given us a great many resources which only await development through the hands of industry to make British Columbia the most important province in all Canada.

I need not refer first to the exceptionally favorable climatical conditions we have here. I feel sure that even in your short stay our weather has demonstrated to you the advantage of living in what many term "God's Country." From an industrial standpoint, in many industries, climate is of immense advantage. To be able to carry on industry for twelve months in the year under favorable conditions from a weather standpoint is an asset to be reckoned with. Our seaboard has been given a lavish share of natural harbors which are navigable and open every day in the 365 days in the year. The situation of the City of Vancouver must be only too apparent to all of you. Its position with reference to the possibilities of export trade to the Orient and our other neighbors, such as Australia and New Zealand, places it in a position against which at a very early date competition in many lines will be impossible, and the necessity will come for our friends from the East to locate their industries on our shores, if they intend to take advantage of the world's markets which await us, and which have been so ably put before this convention by Captain Robert Dollar and Mr. Bryan, our Canadian Trade Commissioner. I feel, after listening to those gentlemen, there is no member of industrial life present here but will see that he can find a market for his product in the Orient and trans-Pacific countries.

We have regular lines of steamers plying to China and Japan. The C.P.R. have a very efficient service in the large "Empresses," which cross the Pacific, and also other vessels. The Dollar Company have a freight service to China. The Canadian-Australasian Steamship Line maintain a regular service to New Zealand and Australia. There is now to be a regular steamship service from Vancouver to India, and this opens up great possibilities for trade through this port. With the regular service, cotton mills might be established here. They would have no difficulty in keeping their industry supplied with raw cotton, and with an all-water freight service both ways should be in a very good position to compete for trade in an export way as compared with Eastern United States obtaining their raw cotton from the South. It is said the annual crop of cotton to-day in India is second to that of the United States and represents upwards of seven or eight million bales.

Dealing with British Columbia's present position to cope with the export business, it would be interesting to note that, as a port, Vancouver already is a very important factor in the commerce of Canada. I asked our good friend Mr. Peters

*Speech delivered at the Annual Dinner at Vancouver, on June 9, 1920.



Where Pacific Shipping Congregates

This is a panoramic view of the marine railway and dock of Yarrows Limited, at Esquimalt, B.C. On the cradle in the foreground are two whalers undergoing repairs. Alongside the dock to the left are the steamers "Princess Maquinna" and "Princess Adelaide" of the C.P.R. Coast Service; the G.T.P.S.S. "Prince Rupert" and the S.S. "Arabian". To the right is the big C.N.R. car ferry, "Canora."

of the C.P.R. if he could give me some information with reference to deep-sea vessels which have entered our harbor from the first day of January to the 31st of May. Mr. Peters gave me the following information, which shows that, without consideration at all of oil tankers, but dealing only with ocean liners crossing the Pacific, we have had forty-six vessels come into our harbor and forty-five leave it during the first five months of the year. When one considers the magnitude of carrying capacity of these vessels and what they represent in wealth, it can be readily seen that the growth of the harbor of Vancouver and its importance in the shipping industry must have the eyes of the world upon it.

Variety of Products Imported

If one visited the docks when these vessels are discharging, they would be struck with the products which are coming from across the seas, and which in many instances are travelling east to our neighbor to the south to be manufactured for the requirements of their population, and in some instances for the requirements of our Canadian population. The place where the finished product should be made in the case of these raw materials should be right here in British Columbia. The finished product should be shipped to the consumer, rather than the raw material. Surely economy could be effected here.

Before passing from shipping, I would like to call your attention to what has been accomplished in British Columbia in the ship-building industry. It was not until 1916 that anything on a large scale was attempted in ship-building. In that year twelve vessels of 2,500 tons dead weight capacity, known as auxiliary schooners, were built. Six of these were built by the Wallace Shipyards of North Vancouver, and six on Vancouver Island. All these ships were launched in 1917 and put to sea. In 1917 the big yards which we now have of J. Coughlan & Sons were commenced on False Creek, and great steel steamships of 8,800 tons dead weight were put under construction. Ship-builders in other parts of the Dominion predicted failure for this new industry, but I think the record which has been attained by the Coughlan Yards in the building of so many of these large steamers and the compliments which have been paid them have shown that the predictions were far from being correct. The optimism shown by the Coughlans has been well rewarded in the compliments which have been paid them with reference to their ships when put to sea.

During the year 1917 the Wallace Shipyards of North Vancouver went into steel construction, and they contracted for the building of three ships of 4,700 tons dead weight. The first Wallace ship of steel was the *War Dog*. She went to sea during 1918, and was used by the Imperial Munitions Board, and later sold to Italian interests. The *Alaska* was the first ship launched by the Coughlan Yard, early in 1918, when she went to Europe and sailed through the mine-studded waters of the North Sea, the Atlantic and the Mediterranean, until the termination of the war, when she was taken over by Norwegian interests. In 1919 the steel yards of Vancouver and North Vancouver supplied nine ships, Coughlans launched five and the Wallace Yards launched four. The Imperial Munition Board's contract of ten 8,800-ton ships was completed by Coughlans, and the company also placed an 8,100-ton steamer in the water for the Canadian Government.

Wooden Shipbuilding

In the wooden yards, twenty steamers of 3,000 tons each were constructed, and twenty of 1,500 tons were launched on the order of the French Government. At Coquitlam a 2,800-ton Greek ship was built and launched, while in the Chaolberg Yards in Victoria two 1,600-ton schooners were built to Norwegian order. We are still keeping up the good work in shipbuilding on this coast. Many people thought on the termination of the war, shipbuilding would cease as far as British Columbia was concerned. Such is not the case. So far in 1920, Coughlans have launched three Government ships of 8,100 tons and two of 8,700 tons. In addition to this, Coughlans have set a record so far as all Canada shipbuilding is concerned by laying down the first big ship to company order. This vessel was sold before construction had been commenced to Swedish interests. Last month the company launched the steamer *Margaret Coughlan*, to company order This steamer will be operated by the company and be one of several ships to be operated by this enterprising firm. It is interesting to note that only a few weeks ago a third keel laid by the company was sold to Swedish interests.

Wallaces have launched one steel ship this year for coast-

ing trade, the *Chilkoot*, and their yards have been busy doing repair work. Two new steel shipyards were started in British Columbia last year on account of orders for Government ships, one at Prince Rupert by the Prince Rupert Dry Dock Co., who are building two 8,100-ton ships, and one at the Victoria Machinery Depot, where launchings are expected to take place this summer. Wallaces are now working on two steel ships, of 8,400-ton dead weight capacity, for the Dominion Government. Coughlans are now constructing two 8,400-ton Government ships, and an 8,800-ton vessel to company order, also one smaller ship for Swedish interests.

Progress of Shipbuilding

Since steel shipbuilding commenced in British Columbia in 1917, 171,700 tons have been built, Coughlans having constructed 138,000 tons. The wooden yards during the period of activity built 214,200 dead weight tons, and in this industry two yards are now busy. Returned soldiers have undertaken the construction of wooden schooners in the Victoria yards. The B. C. Marine is building a 600-ton steamer for the Union Steamship Co., and is now engaged on a 200-foot auxiliary schooner to special type and design, for the services of the Hudson's Bay Company in the Arctic.

The steel ships brought a general approximate price of $190 per ton, and represented a total of somewhere in the neighborhood of $32,630,000. The wooden French and Imperial Munitions Board ships averaged a cost of $205 per ton, and the approximate amount received for them would be in the neighborhood of $43,911,000. The total for this industry in British Columbia for the past three years would be somewhere in the neighborhood of $75,534,000.

	Wood, tons	Steel, tons
1917—Victoria, 6 ships	15,000	.....
N. Vancouver, 6 ships	15,000	.....
1918—Coughlans, 6 ships	.....	52,800
Wallace, 3 ships	.....	14,100
Wooden, 34 ships	87,600	.....
1919—Coughlans, 5 ships	.....	43,300
Wallace, 4 ships	.....	18,800
Wood, 43 ships	96,000	.....
1920—Coughlans, 5 ships	.....	41,900
Wallace, 1 ship	.....	800
B. C. Marine (wood), 1 ship	600	.....
	214,200	171,700

Approximately, as far as I can learn at the present time, in the shipbuilding industry in British Columbia, about 6,000 men are employed, so you can readily see, from the figures which I have submitted with reference to shipbuilding, that, as well as having harbors, we are in a position here, if called upon, to supply the ships requisite for export and import trade through the Pacific Coast.

The Extent of Industrial Development

We have, as already mentioned, immense raw resources represented in our natural mineral wealth, our timber, fishing and agricultural products. In this province, with agricultural areas properly developed, we should be able to raise a sufficiently large quantity for all requirements of a very much increased population, and also be able to have a good surplus for export. We have also, as no doubt many of you have noticed on your trip through the Rockies to the Coast, very large water powers which are undeveloped, and which, if harnessed for industry, would make manufacturing comparatively easy as compared with many other parts of our continent. I am not going to deal with past history regarding industry as applicable to those raw resources—as some of the speakers who are to follow me this evening on the programme are better qualified to do that than I am—and you will have the advantage of listening to the opportunities which present themselves to you from them. However, there are a few figures which I obtained from the Workmen's Compensation Board that I think are of great interest to all of us as manufacturers. These figures, I think, can be taken as very accurate, and show to what extent industry is being conducted in British Columbia, and what amount of money is being distributed through our pay-rolls to the citizens of our province. It must be borne in remembrance that the pay-roll calculated in this way deals only with those who benefit under the Workmen's Compensation Act, and not what might be termed salaried employees of many of our industrial firms in British Columbia.

	Pay Roll	Employees
Lumbering, sawmills, shingle and lath mills, pulp and paper mills, creosoting works, and logging railways	$30,000,000	25,000
Lighter forms of wood-working, planing mills, sash and door factories, etc.	2,500,000	3,000
Coal mining	10,000,000	8,000
Metal mining, reduction of ores and smelting, quarrying, brick-manufacturing	6,500,000	5,500
Iron and steel manufacturing, rolling mills, iron or brass products, machine shops, etc.	4,000,000	2,500
Lighter forms of manufacture, paints, shoes, flour, power-laundries, warehousing	9,000,000	9,000
Building and construction generally, wooden or steel shipbuilding, pile-driving, etc.	30,000,000	20,000
Electric light and power plants, N.E.S.		
Steam or electric railways, etc., N.E.S.		
Telephone of telegraph systems, N.E.S.		
Gasworks, N.E.S., motion picture machines, etc.	4,000,000	4,000
Navigation, stevedoring, wharf operations	3,000,000	2,000
Canadian Pacific Ry. and Cons. M. & S. Co. of Canada, and their subsidiary companies	8,000,000	5,500
Grand Trunk Pacific Railway Company and their subsidiary companies...		
Canadian Northern Railway Company and their subsidiary companies..		
British Columbia Government		
Municipalities		
Canning or packing fish, fishing, fish oil, and fertilizing manufacturing.	13,000,000	15,500
Kelp collecting		
Explosive manufacture, fireworks, fuses		
Chemicals, N.E.S.		
Retail employees		
Great Northern Railway		
Dominion Government		
	$120,000,000	100,000

It is interesting to state that the Workmen's Compensation Board have an average monthly collection from industries of British Columbia of approximately $100,000, while for medical aid purposes they collect $15,600. It is also interesting to note the average wages, as shown to be paid in the various industries in British Columbia, by figures obtained from the Board, which are as follows:—

Logging	$5 19	Railways, steam	5 35
Saw mill	3 92	Stevedoring	4 65
Shingle mills	4 70	Navigation	3 92
Paper manufacturing	4 80	C. P. Ry.	4 58
Coal mining	5 22	Con. M. C. & P. Co.—	
Metal mining	4 89	Smelting	4 32
Machine shop	4 51	Metal	4 17
General construction	5 43	Grand Trunk Ry.	5 05
Shipbuilding, steel	5 05	Can. Northern Ry.	4 32
Shipbuilding, wood	5 57	Government	4 24
Street railways	4 65	Canneries	5 52

The Workmen's Compensation Board are also responsible for the figures that some 564 new industrial concerns have come into existence in the Province of British Columbia during the first four months of the year. These figures only represent industries which come under the scope of the Workmen's Compensation Act, so it is quite evident that industrial development at the present time is growing very quickly in this province.

Dealing with Vancouver as a port, we must not forget the fact that the natural course for export of the western provinces' grain must be eventually through this port. The Government have been alive to this situation, and we have today in Vancouver a terminal elevator with a capacity of 1,879,000 bushels. Compared with the total elevator capacity

of the Dominion, British Columbia's share of it is very small, but the terminal elevator we have here guarantees for the future the movement of a large proportion of the crops. Test shipments have been made to Europe *via* the Panama Canal route, and reports are that the grain arrived in splendid shape. With the movement of grain through this port, establishment of kindred industries, such as flour mills, are within the easy round of possibility.

As a further showing of the development of Vancouver, I think the figures from the clearing house of bank transactions is a very good source of information. If one refers to the bank clearings for the year 1902, they will find, for the twelve months, they reached the sum of $54,467,549. Every year, from that date until the present, has shown a steady increase, the total for 1919 reaching the princely sum of $654,913,208, which is practically twelve times greater than 1902. Nineteen hunderd and nineteen set a new example for bank clearings in the City of Vancouver, but 1920, if it keeps up the record of the past five months, will show another big advance over 1919, as I find that the average monthly clearings have run approximately $70,000,000 for the five months. For the month of May, which has just been completed, the bank clearings were $71,884,569, so that you see one month's business of this city represents a great deal more than the total year of 1902.

The budget which has just been delivered has brought home to us the fact that, as citizens, we are responsible for $1,935,946,312.85 of a net debt. We must meet the obligation on this debt and, to make payment, develop our industries. We must, of necessity, take advantage of the opportunity to develop our raw resources and manufacture the products thereof to as near a finished article as is possible, and must select establishment of industry with a view to the economy of production, so that we can go to the foreign markets of the world and compete in the export business. We cannot hope to pay this debt by passing the buck from one to the other. We must get the other fellow's dollar.

Sir Henry Drayton ably pointed out that we are importing too much from our neighbors to the south; hence the adverse exchange. We must make it our aim and object to develop our industries to the fullest capacity, and thereby it will be necessary to increase our population. The debt, if applicable to a population of say twelve or fourteen million people who are producing, instead of as it is at present eight million, would not be such a serious problem. Mother Nature's natural storehouse provides us with the wherewithal to become a creditor nation at a very early date, if we grasp the opportunity. It is the duty of every one of us, as it was during the war to defend our country, to use our very best efforts to relieve the burden that has been placed upon us as citizens, so that it may not fall heavily upon those who have to follow after us, and I feel sure every member of the Canadian Manufacturers Association individually recognizes his duty, and will do his best.

Tariff Situation Thoroughly Discussed

(*Continued from page* 199.)

of knowing what the Canadian manufacturer really is doing. To a certain extent, what Mr. Campbell has said is correct as far as our line is concerned, but in possibly a great many of the cases the situation is as it is outlined in the report."

MR. J. B. THOMSON (Vancouver): "Following out Mr. Stewart's remarks, I think a very important feature has been brought out. With reference to the large cotton mills in Canada, I think you will find at all times the Eastern cotton mills, during the past year, have been selling at a lower price than you could import goods from England, and they did not take advantage of the situation.

"There is another point in connection with this tariff question that up to the present time has not been brought out in the report. I don't know whether I can convey it without the correspondence I have, properly, but take a concrete example. Say a Canadian goes over to France to purchase ribbons as against the Belding Paul people who manufacture, and he has to pay duty on the value of home consumption in France which is on a very much depreciated franc, but that makes it almost impossible for him to import ribbons as against a London salesman selling to Canada. That London buyer goes over to France, buys his ribbons and pays for them on the depreciated franc and sells a certain quantity on the London market, establishing a price on the London market in ribbons, and when he exports to Canada he uses his home selling price, while he has to pay duty on the value of the franc. At the same time his exchange with Great Britain is on the depreciated franc, and he really pays on a much lesser amount than he should in that way. I think if that is figured out you will find it is a hard blow to those dealing in ribbons in Canada."

The motion to adopt the report was carried and the report of the Tariff Committee declared adopted.

From Our Gallery of Convention Snap Shots



R. E. Jamieson

Dominion Rubber System, Limited, Montreal



C. G. Robson

W. H. Clark & Co., Limited, Edmonton, Alta.



F. J. Campbell

Canada Paper Company, Limited, Winds Mills, P.Q.

Industrial Future of British Columbia*

As the Pioneers Could Scarcely Have Foretold the Rapid Expansion That Has Taken Place Already, so There is Ground for the Greatest Optimism When Looking to the Future—The Wonderful Progress That Has Been Made to Date

By G. G. McGEER, M.L.A.

BIDDEN by your invitation to a discussion of British Columbia from an industrial point of view, and "forbidden" by express direction to make a political speech, I appreciate, in trying to reconcile orders with propriety, the perplexity of the little maid who, though ordered to learn to swim, was yet adjured "now go my darling daughter, hang your clothes on a hickory limb but don't go near the water," for, Mr. Chairman, I can assure you that to leave out of this discussion the spice of our delightful political activities is somewhat the same as trying to learn to swim without water, and I can assure you, adds somewhat to the difficulties of the occasion.

I appreciate in addressing this gathering, representative as it is of the great business interests of the Dominion, that it is essential to avoid any mere glittering generality, high-sounding phraseology or any appeals to pure emotionalism, but I trust that you will pardon me, if, during my remarks, I appear to be overly optimistic in being too willing to anticipate the future, for while I can get along without making a political speech, I cannot help being a British Columbian, and no British Columbian can live without optimism. (I have no doubt that you have been advised about, and warned against, that optimism from time to time by your creditmen).

In my instructions I have been given to understand that I may touch lightly on our history; that I may say something of the industrial position that we now hold, and that I have a *carte blanc* order to discuss, without limit or reservation, the existing possibilities for future development.

A Review of Past Progress

The time at my disposal permits me but the briefest reference to our history, delightful, interesting and inspiring though it is. I only wish to touch upon the outlook as it might have appeared, to the adventurer and pioneer of other days. When we look back at some of the adventurous spirits who carried out the first exploratory expeditions to our shore and who came in search, as you are well aware, of the mythical North-West passage, could it have been possible that they would have thought of the change that a few short years would make? I wonder if, in 1778, when Capt. James Cook finally decided that no such passage existed, the veil of the future could have been drawn aside, permitting him to see the solution of that problem of a passageway to the East in the stupendous work of another band of equally intrepid and daring men—the construction of the Canadian Pacific Railway. This not only solved the problem of the North-West passage, but did something even greater than that for, by the laying of over 3,000 miles of steel rails, the men who forced that undertaking through in the face of overwhelming obstacles, united the people of the Dominion of Canada by bonds that never can be broken and made possible the development of the Empire's greatest colony to what it is to-day.

Was it possible, do you think in 1793 that Sir Alexander Mackenzie, the first white man to sight the Pacific, via the overland route, which he did in the vicinity of Bella Coola, had the faintest idea of the hundreds of thousands of souls that were to follow in this short space of time the trail that he had blazed?

In 1808, when Sir Simon Fraser, whose monument looks out of its cold bronze eyes from its site in the ramparts of New Westminster City, across that river that bears his name, and which at that time he discovered, do you think it was possible that that great adventurer and visionary genius, even in the wildest flights of his imagination, could conceive of anything of the potentialities of the river and the land that he made known.

Completion of the C.P.R.

In 1885, when the last spike was driven and rail connection between East and West was complete, the builders of the greatest railroad ever undertaken had just cause to be proud of the achievement. Do you think that they foresaw the future as it has been disclosed? I am inclined to the opinion that, great as their expectations may have been, there was not a man in that whole magnificent undertaking who realized for a moment the success with which the future would crown the undertaking, or even dreamt of the value of the resources, or the industrial possibilities as they have come to be known to-day, of that land the railroad opened to the people of the world.

Do you think that a passage from Montreal to Vancouver in 92 hours was even possible as a conception in any of their minds, or do you think the erection of this magnificent building as a part of the hotel system of that railroad, of the extension of their transportation system across the Pacific, and the operation of such boats as the *Empress of Asia* or the *Empress of Russia*, were possible of conception at a time when some of the leading statesmen of the Dominion were predicting that the undertaking would end leaving "two streaks of rust" across the Canadian West as a monument to the folly of the proposal?

Mr. Chairman, so it is down every step of the wonderful story of the development of the Canadian West, the future has always justified the daring and has always vindicated the optimist who worshipped at her shrine.

Justification for Optimism

I am just making one or two references to the past with a view to justifying the work of the pioneer of to-day and that is the work of the men who are pioneering the development of a great industrial community. In the beginning we had the explorer, and following in the wake of the explorer in British Columbia, as in every other part of Canada, came the fur trader. And up till the time of the discovery of gold in the bars of the Fraser River and in the Cariboo, fur trading was the sole occupation of the few white men in the country, but in the fifties the discovery of gold brought to the West a flood of immigration and the immigrant of that day was the argonaut of old; he was the soul of optimism, and his spirit has never been eradicated from this country and never will be.

*Speech delivered by Mr. McGeer at the annual dinner of the Association at Vancouver, on June 9, 1920.

It was then that mining was added to the list of industries. The boom that followed the discovery of gold, as it always does, brought many more seekers than were successful and many were compelled to find employment elsewhere, and as there were no manufacturers available with a pay-cheque, we had in that early day the first "back to the land movement" and incidentally added another industry to the list, namely, agriculture. And so the community of British Columbia slowly commenced to take form and its members lived and thrived and kept on living, I am satisfied, mostly on hard work and optimism.

The next great step forward outside of the creation of the colonies of Vancouver Island in 1849, and British Columbia in 1858, and their merger in 1866, into the Province as it is to-day (which features, of course, I am not permitted to discuss because it may be said that it would savour of politics), was the construction of the Cariboo Road which connected the interior with the coast, and which was the precursor of the railroads of to-day. Then in 1885 the Canadian Pacific Railway was completed and a new era dawned in British Columbia, but it was not until the gold discovery in the Klondike in the last nineties that the Province of British Columbia came to be known as having possibilities and potential wealth in other sources that would equal if not surpass her mining possibilities, and probably it would be correct to say that the true development of industrial British Columbia does not go back beyond 1900.

In 1898, the year of the Klondike rush, the population of the City of Vancouver, including all of its environs, was 21,000. In 1902 it had increased to 45,000. To-day it is estimated that the City of Vancouver and its environs has a population of at least 173,000 white people and 15,000 orientals. The population of British Columbia has grown from 178,500 in 1902, until to-day it has reached the grand total of 445,000.

From that time on, in connection with the industrial growth of the community, sweeping and exhaustive investigations have been made into the extent, value and the uses to which they can be put of all our natural resources. Our timber has been surveyed and classified; our minerals have been prospected and developed; our water powers have been estimated; our agricultural lands have in a general way been examined and experimented upon; our coal areas have been and are being developed and, with the knowledge that these investigations have given us, we stand in British Columbia to-day, no longer in the position of the speculator, but on the contrary the possibility and extent of our industrial development is now a known factor. This knowledge has been responsible, during the last twenty years, for a remarkable industrial development, and great though that development has been I think I will be able to show you that few countries can offer to the settler, the investor or the manufacturer such advantages as he may find here. This is a country of 385,855 square miles; it has a population of less than half a million; there are mountains stored with exhaustless treasure; forests, vast and primeval; and rivers that loitering or tumbling run wanton to the sea, providing power in abundance for the manufacturer, and in many instances natural highways from the interior to the coast. An even climate above a fertile soil yields to the husbandman almost every product of the temperate zone. Of the essentials of industry, water, power, coal, mineral, timber and agricultural products, we have them all in abundance, situated on 750 miles of coast-line whose harbor and trade possibilities are unexcelled.

Tapping this store of wealth from the East are three great transcontinental railways to say nothing of the connections that are made with the great American railway system to the south of us, and on the west the ocean provides a highway to the markets of the world. In our coast



A British Columbia Industry

Scene in the plant of the Heaps Engineering Co. at New Westminster, which was visited by the C.M.A. party

waters, in our rivers and lakes, there abounds a wealth of food fish sufficient to feed the people of the whole Dominion. From this assured and permanent advantage is growing an amazing system of industries, which is attracting attention from every quarter of civilization. Such, sir, is the picture of this province. Such, sir, is the source of inspiration that gives to the British Columbian his spirit of optimism.

British Columbian Forest Wealth

The survey of our forest wealth by the officials of our Provincial Government places our total stand of merchantable timber at 400,000,000,000 feet board measure. The three-year survey made by the Board of Conservation for the Dominion Government, placed that estimate somewhat lower and I think gave it at 366,000,000,000 feet. The annual growth is estimated at over 5,000,000,000 feet, while the total cut to-day is much less than 2,000,000,000 feet, thus showing that our cut is only a little over one-third of our annual growth. In 1903 the cut of lumber did not exceed 320,000,000 feet, but in 1910, however, the cut had jumped to 1,040,000,000 feet; in 1919 the cut mounted to 17,583,290 feet, and there is a substantial increase estimated for the year 1920. A comparison of the figures for the last four years of the value of the forest products created by the timber industry will give some general idea of the value of the asset to the Province and its steady increase in volume:

1916	$35,500,000
1917	48,400,000
1918	54,162,000
1919	70,000,000

This Province within its boundaries contains more than half of the total stand of timber in the Dominion of Canada, and without touching our enormous reserve, we can increase our production almost three-fold. With the growing demand for timber, and timber products, the world over, we can look forward surely to a steady annual increase in this great basic industry, and it will develop, as it grows, all of the attendant industries necessary for the manufacture of tools, machinery, equipment and supplies which are used in the lumber camps, in the mills, and the manufacturing plants that constitute the timber trade. We can look forward to the developing of a great merchant marine for, in such a land, a merchant marine has always an inexhaustible supply of cargo outward bound.

The Pulp and Paper Industry

In 1910 we manufactured no pulp or paper in British Columbia. To-day this pulp and paper industry is firmly and definitely established as a part of the industrial life of the Province. We have at Powell River, Ocean Falls and Quatsino Sound, three of the largest pulp and paper mills in the world, and last year the value of the pulp industry was $12,254,000. Of the two essentials of this industry—pulpwood and water-power—there is an abundance. The water-power on tide water alone is estimated at 1,000,000 horse-power, while the supply of pulpwood is practically inexhaustible. The world shortage of pulp and paper, to say nothing of the rapidly developing Eastern trade, is sufficient indication of the existence of a market for all that can be produced. And besides the three large mills that I have spoken of, there are already smaller ones in existence and several others are, I believed, projected. If our wealth of timber and wood were all that we had, our industrial prosperity would be assured, but that is not all by any means. The mineral industry is equally as great.

To date the mountains and creeks in the Province have produced $640,000,000 worth of minerals of all kinds. To-day the mineral industry employs over 13,000 men and annually distributes approximately $16,000,000 in wages. This industry has produced for every man, woman and child in the Province the sum of $141.00, the highest per capita production on record. Figures are always fascinating and, when one follows the record of the growth of the mineral industry down from the year 1852, we cannot but be conscious of a feeling of pride, for the statistics disclose one long story of a never-ceasing but always successful effort to wring from nature the treasures she has so carefully stored within the bowels of the earth. And in the year 1918 the mineral wealth produced totalled $41,780,000. When you consider that figures in face of the fact that our mineral reserves are barely scratched some idea of the possibilities of future development may be appreciated.

Vast Mineral Production

In the year 1918 the total production of copper amounted to 61,483,754 lbs., and yet in the Province of British Columbia we have no copper refinery. The Britannia Mine on Howe Sound, not 25 miles from where we sit to-night, is the largest copper mine in the British Empire, yet, Mr. Chairman, its ores are smelted at Tacoma, in an alien and a foreign land. All along the coast-line as you travel northward are properties in different stages of development—some small and some large—until you come to the Granby property some 650 miles north of here. Since the opening of this mine in 1914, it has outstripped all others as a copper producer. The smelter provided for the smelting of the ores is the second largest in the British Empire. In the year 1918 they produced 29,697,376 lbs. of copper. The Copper Mountain property just outside of Princeton, the property of the Canadian Copper Corporation, is just commencing its producing activities. Its capacity is 30,000 lbs. of copper per day and no doubt will become one of the large producers. This, sir, is the story of copper, and had I the time I could tell you equally as wonderful a story of the development of the mining of gold, silver, lead and zinc.

If you will turn your attention to the Kootenays in the south-eastern portion of the Province, you will find amongst a host of others the largest silver, lead and zinc mine of the world, the property of the Consolidated Mining Company, whose fully equipped smelters are located at Trail. The new camps at Stewart and Alice Arm, while as yet not proven, are giving every indication of producing mines that will be equivalent of any that have already been discovered in this country, and particularly the silver values are being looked to with exceptional expectation. With this enormous industry distributing as it does in the purchase of supplies, in the purchase of machinery and equipment, and in the payment of wages, enormous sums, it is not difficult for me to impress upon the manufacturers here present the quantities of material that must be manufactured to keep such an industry going.

We have by dint of perseverance and hard work proven the Province of British Columbia to be a great mineral country. We have experienced remarkable growth in the development of that industry, but who is there here that can say that we have not the right to look forward to a growth of which our present condition is but a mere indication of its extent and value? At least I think that I am safe in saying that there are few countries, certainly no Province in the Dominion of Canada; and I know of no other place that offers to the miner and the mining promoter, or to the manufacturer a future of opportunity so great and so varied. There is hardly a form of mineral, with the exception of tin, that has not been found in quantity; there is no building



View Along Waterfront, New Westminster

One of the spots visited by the C.M.A. party during their trip to New Westminster on June 9

material which we have not got; our reserves of iron and coal have been pronounced by experts of exceptional value. For many years it has been considered an essential to the true development of the industry of British Columbia that we should have facilities for the manufacturing of pig iron and steel. It is true that those who have predicted this as an essential necessity may have been anticipating the future too willingly, but there is no question but that the time is rapidly coming when not only will such an institution be an essential necessity but will be a practical possibility.

Enormous Coal Reserves

The coal areas of British Columbia contain reserves of coal amounting to approximately 76,000,000,000 tons. The greater percentage of the total coal deposits of the Dominion of Canada exist in the Province of British Columbia and in the sister Province to the east of it. The coal fields of Vancouver Island, the Nicola Valley and the Crow's Nest are all substantial producers, while the anthracite coal fields in the North in the Ground Hog coal country have presented indications of great possibilities as soon as transportation facilities develop, and these deposits are within 90 miles of tidewater.

Recently very extensive discoveries have been made of valuable deposits of iron. In the White Water country in the Chilcoten District, I understand some 50,000,000 tons of ore have been located that is particularly easy of mining and suitable for making pig iron and steel. This is only one of several deposits of high-grade iron ore known to exist.

This gives some slight indication of the possibilities of industrial activities in the mineral reserves of the Province, but the reference I have made to those possibilities is very slight as compared with what might be properly said about them.

To the manufacturer who looks askance at the rising cost of fuel, the water powers of British Columbia must appeal as nothing else possibly could. The volume of water power in British Columbia is 2,500,000 24 horse power, and while, of course, many of these water powers are as yet not developed, the time will come when they will be developed and when they are developed and operating, as they will be, the manufacturer will have the definite assurance that he will be supplied with the cheapest power in the world. If we were dependant upon our forests and our mineral wealth, I think it would appear to you that we would be well taken care of, but these great assets are only incidents in the distribution that the divine hand of Providence has made of wealth and substance in this land.

In the year 1918, the value of our fisheries almost equalled that of all the rest of the Dominion of Canada combined, amounting to $27,282,223. There have been abuses in the development of that industry from which the country will suffer and against which proper precautions must be taken, yet at the same time it must be remembered that up to the present time our deep sea fisheries have hardly been touched. There may be one trawler operating between the 49th parallel and Alaska and, if there is, that is all, but there is an opportunity which unquestionably will be taken advantage of, to exploit the deep sea fisheries, and when that day comes the fisheries of this Province will then, and then only, come into their full and true proportion. In 1918, during the food shortage a trawler, known as the *James Carruthers*, was operated over a period of 151 days, making in all forty-nine trips. The approximate catch was 2,000,000 lbs., consisting of sole, flounders, witch brill and other food fish of the flat variety. The wages that the men netted, including board, was approximately $2,000 cash or over $3.00 per day.

Agricultural Growth of Province.

I have given you an insight in the development of our industrial community in the field of timber, in the field of mineral and in the field of fisheries, and I just want to draw your attention for a moment to the agricultural growth of this Province. There are many who come to this country who go away with the false impression that the Province of British Columbia is a sea of mountains, that it has a few mines and a few fisheries and a few lumber camps and little else. Nothing could be further from the truth, and for fear any of you here to-night may be mistaken in that particular conclusion I want to refer to the growth of our agricultural industry. In 1892 we had a home production of all agricultural products amounting to slightly less than $2,000,000. In every year from that date forward till to-day there has been a marked and steady increase. While in that year we imported some $2,659,000 worth of agricultural pro-

ducts, which was more than we produced. In 1910, we had practically equalled our importation with our production, when we produced $11,000,000 of agricultural products and imported $15,000,000. Slowly but surely that development continued until in 1918 we produced $49,444,000 worth of products and our importations were a good deal less than half of that amount, or $21,905,446. Last year, 1919, was a banner year. We produced $65,398,556 worth of products and imported but one-third of that amount, or $22,734,000. Can I hazard the prediction here to-night that some day in the not too distant future the Province of British Columbia will become a great exporter of agricultural products? The total area of land of the Province of British Columbia is 226,186,570 acres; of this, a goodly portion is made up of mountains and lakes and waste land, but available for agricultural production there is in this Province 26,618,000 acres of land, or 10 per cent. of the whole, of which area there has been taken up 2,540,000 acres of land, or about 11 per cent. Of this land taken up, there is at the present time under cultivation 414,000 acres of land, or 16 per cent. of the total taken up, as of the area available for agricultural purposes only 1.8 per cent. is used. That our land will rapidly come under cultivation from now on I am certain is a fact, and already a large immigration seeking agricultural land has, since the close of the war, begun to arrive within our borders. If you will travel out to the delta of the Fraser and travel that wonderful valley, you will find the finest dairying, mixed farming and small fruits and berry-growing area imaginable, and the same can be said of much more of the lower mainland and Vancouver Island.

Development of the Interior

If you travel into the interior plateau, of which Kamloops is the largest city, you will find a country from 200 to 300 miles wide, stretching from our southern boundary northward over 700 miles suitable at all times for cattle and sheep-raising, and in many places you will find it suitable for grain-growing, alfalfa and mixed farming of the most intensified order. You will find the country opened up and developed to a remarkable degree; you will find that country dotted with lakes and well supplied with water from sparkling rivers and streams. You will find a remarkable system of highways and roads; you will find, throughout, innumerable towns and villages, while as yet small, all started on the highway to greater growth and development.

Bordering on the Okanagan Lakes you will find the wonderful fruitlands of the Okanagan Valley. The growth of the fruit industry is one of the remarkable features of the west. Fruit lands of the interior are taking second place to none, and just in that connection, in 1911, the production of fruit was $878,181 and see what has happened in the short period of time that has elapsed to date. From less than one million dollars the industry has grown in eight years to a production of $7,772,774, or an increase of almost a million dollars per year.

The value of the exported fruits in the year 1911 was $185,000. The value of the exported fruit in this Province in 1919 was over five millions of dollars. To-day the farmer has passed the pioneering stages. As the volume of production has increased, he has gradually overcome the difficulties that beset him in the beginning. You will find now his co-operative organizations such as the creamery, and the fruit and vegetable cannery; you will find in existence the condensed milk factory, and the jam factory, and you will find organizations created for the marketing of his produce no matter what it is. His transportation difficulties are being rapidly overcome. The general scheme of transportation is a very extensive one, for besides the three great railways to which I have already referred, there are many branch lines, tapping the richer localities and valleys. The Kettle Valley road which crosses the southern part of the Province extending to Nelson on the Kootenay Lakes, and the Pacific Great Eastern extending from Vancouver north-eastward to Fort George, which will be completed this year, serve a tremendous area of the Province.

The System of Highways

Supplementing this rail communication is a system of highways now in course of construction, which will give, when completed, a system of roadways constituting in all some 17,000 of miles. When the work is finished you will be able to motor from Vancouver to practically any part of the Province. You will be able to travel through the Fraser River Canyon along the route of the famous Cariboo road, and from there you will be able to motor through the Crow's Nest Pass to Alberta, or northward to the pleasure resort at Banff in the heart of the Rockies, or you will be able to travel northward through the Cariboo country to Fort George and from Fort George westward to Hazelton. You will appreciate what this will mean to the settler and the interior points of settlement, to say nothing of what it will mean to the intending settler and the tourist. Such a system of highways bids fair to make Vancouver one of the tourist centres of the North American continent.

In a country such as this, where the industrial wealth annually produced from its natural resources alone totals in the vicinity of two hundreds of millions of dollars, when it is realized that all of this has been accomplished in the last 20 years by a population of less than half a million people, surely it is not necessary to elaborate upon the possibilities for industrial activity which here exist.

You will find in this Province a prosperous and hospitable people. You will always find much of the spirit of the earlier pioneers, and while you will find the same old optimism and the same old spirit of fortitude. I make bold to hazard the statement that there are none here to-night who are able to anticipate what the industrial future will unfold during the next quarter of a century. We believe that we are but at the beginning and we feel that there is no limit to the possibilities of our growth and expansion.

A Province of Great Possibilities

I have taken up considerable of your time, but if I have been successful in placing the facts and figures which I have given before you in such a way as to merely court a further investigation by yourselves, I am content to feel that my time has been well spent, and what I wish to impress upon you gentlemen here to-night from other parts of this great Dominion, that the Province of British Columbia is the part of Canada with the greatest of possibilities; that the success of its development depends upon the energy and the ability of the captains of industry of this land. As the adventurers and pioneers of other days have shown the way and blazed the trail to this then far-off country, the pioneers of industry during the last 20 years have opened the door to the possibilities of her future industrial greatness.

The General Manager of one of the largest and most important departmental stores in Australia is visiting Canada and is desirous of meeting manufacturers who are interested in export to Australia. His firm buys and imports goods of almost every description. Information may be secured at Commercial Intelligence Department, Canadian Manufacturers Association, Toronto.



Vancouver Hostesses of the Excursion Party

Members of the Ladies' Reception and Entertainment Committee photographed at the Summer Home of Mrs. J. J. Banfield, North Arm of Burrard Inlet, on the occasion of the visit of the C.M. A. Ladies to this beautiful spot. Standing, left to right, are Mrs. O. Phillips, Mrs. J. G. Todhunter, Mrs. Erb, Mrs. R. H. Gale, Mrs. H. E. Grout, Mrs. A. J. Paterson: Seated, Mrs. S. D. Scott, chairman of committee and Mrs. J. J. Banfield. The figures to the left and right of the group are Mrs. H. M. Ramsay and Mrs. J. B. Thomson.

Premier Oliver's Address at Opening Luncheon

History and Resources of British Columbia Sketched in Picturesque Language at Board of Trade Function on Monday, June 7

HON. JOHN OLIVER, Premier of British Columbia, in addressing the members of the Canadian Manufacturers Association at the luncheon given in their honor by the Vancouver Board of Trade, Monday, June 7, spoke against time and without reference to notes. In the few moments allotted to him, however, Hon. Mr. Oliver gave welcome to the coast province to the visitors, reviewed the industrial history of the country in recent years and sketched in picturesque language the possibilities of the future.

In his opening remarks the speaker deplored the fact that he was confined to a few minutes. He was not used to making short speeches, he said, and thought that it was unfortunate that he was called upon to condense his speech, as it would not permit of him adequately dealing with the tremendous opportunities of British Columbia.

Continuing, the premier said, "One of the difficulties we are faced with here in this province is that our raw materials are shipped away, either in their natural state or only partly finished. This makes a great difference, as for instance pig iron is only worth a few cents a pound, but when manufactured into fine watch springs is worth many thousands of dollars a pound. We are in the position of having the raw materials, which we ship away, obtaining a price comparatively small in proportion to the finished article, and then we buy back the manufactured product at an advanced price. This is not right. In doing it we are robbing ourselves. We have not been making the most of our opportunities and resources.

"What we want and what we must have is Canadian goods manufactured from Canadian resources for the Canadian people. Not for the people of the West, or those of the East, but for the people of the whole of the Dominion."

Continuing, the premier told of the increase in the production from the soil of British Columbia, quoting figures to substantiate his declaration, that British Columbia was fast becoming less dependent for her foodstuffs on imports. He told of the development in mining, of the opening out of new mineral zones, and of the potential wealth of the hills. What was required was proper development. "There are vast coal areas in this province, and yet we are importing fuel oil where we should be making use of pulverized coal in place of oil," he commented.

He had recently returned from a visit to the interior, said the premier, and he pictured in forceful language his impressions of the journey. Leaving the main line of the C.P.R. at Hope he had crossed through the Coquhalla Pass, a district where new mines were being located, to the Similkameen Valley. Here at the town of Princeton were coal mines, and beyond, up the valley were productive orchards, while four miles away was Copper Mountain where more than ten million tons of copper ore had already been blocked out. Passing over to the Okanagan Valley he was in the midst of the fruit country, where there was an increasing population of happy and industrious settlers. Beyond he went to the Kootenay country with its ore deposits. This country was rich in minerals and products of the soil. He described the expansion of the smelting plant at Trail. Here, for the first

time in British Columbia, the copper taken from the mines of the province was to be finished. Other smelters had either shipped the matte away across the border to be refined, or had taken one more step in the process, that of manufacturing blister copper before sending the product to New Jersey for completion. At Trail the copper would be taken in as ore and would be turned out as copper rods, ready for the market. It was expected that eventually, bars and sheets would be milled at the plant.

With a wealth of detail the speaker described the lumbering activities of the province, and in doing so referred to the possibilities existing for the establishment of wood-working industries. He also hinted at the waste when he said that while the return from the forests for the past year had been approximately $70,000,000, it had required the cutting of 1,758,000,000 feet board measure to bring about this return.

The available timber reserves of British Columbia totalled 366,000,000,000 feet, according to the estimate of the Conservation Commission, said the speaker; but the Provincial Forestry Department had calculated it as 400,000,000,000 feet. The annual growth was about 5,000,000,000 feet, and the annual cut about one-third of that amount.

The premier explained that he had pictured the resources of the province in order to show that there was every reason to expect a largely increased population, so necessary to manufacturing, as well as to point out the opportunities existing in British Columbia.

"Speaking about iron," he exclaimed, "We really do not realize what we have in this province. We knew that we had big deposits of iron ore, but thought we could not secure hematite for fluxing it. Recently, however, great quantities of bog iron have been located, and before you manufacturers return to hold another convention here we shall have iron and steel industries in operation."



J. F. Mackay
Willys-Overland, Limited, Toronto
Chairman 1919-20 Publishing Committee

Turning his attention to the canning industry, the premier pictured the progress made in this industry in recent years, and then exclaimed:

"What is the matter with British Columbia going into the sugar beet industry?"

He went on to explain that there were unmeasured stretches of land in the province available for such an industry. The big central interior, he said was crying out for settlement. There were great areas of grazing land on which the foot of domestic animal had never been placed, while countless hills offered pasture for hundreds of thousands of sheep, the wool of which could be used in the manufacture of cloth in the province.

While much had been said of the depletion of the sockeye salmon runs of British Columbia, continued Hon. Mr. Oliver, a great deal more could be said of the development of the fisheries along other lines; of the great catches of ground fish, halibut, cod and other members of the finny family; of the whaling stations and of the new industry just starting, that of manufacturing leather from the hides of sharks.

There were many industries in British Columbia he said, naming a few of them, but there was need for a great many more. He illustrated this by reference to the pulp and paper manufacturing possibilities of British Columbia.

Future of Paper Industry.

"You in the east," he said "and all over the continent are suffering from a shortage of paper, and particularly newsprint. In British Columbia we have millions of acres producing pulp wood. We have several big plants at work on the Coast making pulp and paper, but they do not supply the whole market. There is room for many more pulp and paper plants. In the interior of this province there are opportunities for the establishment of these industries. Take for instance at two points. There is Quesnel. Rivers and lakes stretch through the great central part of British Columbia along which there grows an abundance of pulp wood, which can be easily and cheaply transported for hundreds of miles to Quesnel by water. There is ample hydro-electric power available on development. There is sulphur in the province, while in the mountains are available large quantities of the finest talc, almost pure, which can be used in the manufacturing of the better grades of paper.

"At Prince George there are similar opportunities. There are several rivers along which the finest kind of pulp wood can be floated to mills at that place. There is available water power, and in fact all that is required is the machinery and labor."

In again welcoming the convention to British Columbia, the premier said, "You have a very important and responsible part to play in the building up of the Dominion, but in building up a great industrial nation of Canada due consideration must be given to the human element, for conditions have changed. I have no quarrel with Capital. It is necessary, and if properly used it is a great reserve of power for good. Capitalism is a friend of mankind when it is properly directed, but there exists a need of educating the minds of people to the necessity for economic production and the bringing about of more harmonious relations between all classes of the community.

"Wealth," continued the premier, "is not the proper standard of success. There is something greater than wealth. It is service, and the true standard of success is service. If unrest is to be done away with a new sentiment must be manufactured in the minds of men and women—not the sentiment of dollars, but the sentiment which calls for the utmost in service."

Trade Possibilities on the Pacific Coast*

A Summary of the Great Natural Resources of British Columbia—How These Resources Will be Utilized in the Coming Year in the Development of Trade With Eastern Canada, the Orient and Other Parts of the British Empire

By J. O. CAMERON

Cameron Lumber Co., Limited, Victoria

BEFORE launching out into the field of speculations on what great trade possibilities are to be realized during the next ten years, some reasons for my faith should be given.

The whole of the Pacific coast of Canada is within the Province of British Columbia, whose area is 355,855 square miles—thirty-seven thousand square miles larger than the combined area of the States of Washington, Oregon and California. Its coast line, everywhere made irregular by bays, estuaries, inlets and arms, which form numerous safe harbors and ports, is thousands of miles in extent.

Under the heading of forests, I can tell you that the best estimates available give the area of standing timber at one hundred and eighty million acres. It is recognized that the timber is of a superior quality and of large size, and that this province has the largest compact area of forest on the North American continent. Estimates prepared by the Forestry Branch give the quantity of merchantable timber at about three hundred billion board feet.

Up to the present there has not been cut during any one year as much as two billion feet, which includes all the timber taken out of the forests, viz.: pulpwood, poles, piles, mining props, hewn ties, as well as logs for the lumber mills, which is less than 1 per cent. of the total stand. The Annual Report of the Forestry Branch of the Province, recently issued, shows that the value of the timber products for the year 1919 was $70,285,094, leading all other basic industries

British Columbia has a considerable area of agricultural lands as well as her tremendous territory of standing timber. A small percentage of her agricultural lands is being utilized.

Value of Agricultural Products

The Honorable Mr. Barrow, Minister of Agriculture, has recently issued a report giving the value of the products of the agricultural industry for the year 1919, which shows the very considerable sum of $65,384,556, being a very close second to the value of the products of the forests. While the area of land suitable for agriculture is reduced by the mountains and lakes, nevertheless the valleys and arable land along the sea shore are fertile and productive. These areas will be best utilized divided into small farms of ten and twenty acres, which can be brought to a high state of cultivation. All such places will make the most delightful homes, as, besides the charming climate, they will have the advantage of sublime scenery, being always in sight of towering forest-clothed mountains and beautiful lakes and streams.

The mines of the Province have long served to add to the wealth of her people. The important minerals produced are gold, silver, copper, lead, zinc, and many others in small quantities. The reports of the Department of Mines for the year 1919 show the value of these minerals gained from the mines during the year amount to $20,095,057. The principal items being: Copper, $8,631,205; silver, $3,871,063; gold, $3,216,865; lead, $1,658,121; zinc, $2,717,803.

Coal deposits of great extent exist in many sections. Only three districts, however, have so far been systematically prospected and worked, namely, the Crow's Nest Pass, the Nicola Valley, and the East Coast of Vancouver Island. Records in the office of the Minister of Mines show a total production of 2,504,000 tons during the year 1919. All of the coal developed is bituminous of a good grade.

Extensive developments of ore are found in a number of places. Mr. Kindeman in his report to the Department of Mines states that there are deposits of magnetite in the valley of the Gordon River near Port San Juan, at several places in the vicinity of Barclay Sound, at Head Bay and Nootka Sound, all on the west coast of Vancouver Island; at Klaanch River, near Alert Bay, and near Quinsan River on the east coast of Vancouver Island; also on Texada Island. There are large supplies of good limestone on Texada and Vancouver Islands, and none of the deposits are far from the coal mines of Vancouver Island.

Water Teeming with Fish.

The waters surrounding the Islands and rippling through the straits, in and out of the estuaries, inlets and sounds, driven on and drawn back by the ever-changing tides, are everywhere teeming with fish.

The reports given out from the office of the Honorable Commissioner of Fisheries show that the value of the fish taken during the last year for which reports are all made up, was $21,051,711.

While discussing the products of the sea, it is not amiss to mention the fact that wide areas have a thick growth of kelp. This plant has been found to be useful for various purposes, but a process has recently been perfected for converting it into good cow food. If this should prove to be what is claimed, the industry of gathering the kelp and working it into cattle food will prove to be a very large one.

Large deposits of clay and shale suitable for making brick, tile and other clay products, are found in many localities, some of which are being worked. Mountains of rock suitable for making cement also exist, and two large cement works are located on Vancouver Island near the city of Victoria. The abundance of coal and opportunity for shipments by water give unexcelled promise of great trade developments in the clay products and cement.

The Province's Water Powers.

There are many other natural resources and basic industries which might be mentioned and described were the time sufficient, but I will only refer to one other, which is of so great importance that any description of the resources of the Province omitting it would be far short of a description of her natural resources. I refer to the great water powers now developed and yet to be developed. The actual development of this great natural asset up to the present time amounts to about three hundred thousand horse-power.

Now, having briefly referred to the great natural resources of the country, and shown the present state of the development thereof, it is my purpose to direct your atten-

*Address delivered at the annual banquet of the Association at Vancouver, June 9, 1920.

tion to the future, and endeavor to show you some of the great industries which should, and no doubt will be established during the next decade.

Trade between our Pacific coast and the other provinces of the Dominion will increase more rapidly than ever before. There are now in operation three great transcontinental railways, two being Government-owned, and the other the great C.P.R. system, which is no doubt the greatest of all privately-owned railway systems; so that the means of transportation of all products and commodities is therefore most complete. The full power of this Association should be constantly exerted to force upon Canadians the habit of using Canadian raw products in their factories, and being sure that the manufactured articles they buy are from Canadian factories. I am quite aware of the campaign which has been carried on by this Association for a long time with that object, and can only say "keep up the good work."

Needs of the Prairie Provinces.

The three provinces occupying the great grain-producing prairies are growing rapidly in population and otherwise, and therefore are needing lumber, shingles and other building materials in increasing quantities year after year for their new improvements. They are finding that they must depend on the forests of British Columbia to supply their necessities. In years past the lumber mills of the United States supplied considerable part of all the forest products used in the prairies provinces. The U.S. mills used that section as a dumping place for their surplus production. Now there is no longer any surplus production, and probably never will be again. To prove the correctness of this conclusion it is only necessary to quote the words of the Honorable Mr. Meredith, Secretary of Agriculture for the United States, used in his report to the United States Senate. He said, "Scarcity of timber in the Eastern States is by no means the only cause of high prices. But the fact remains that three-fifths of the original timber of the United States is gone, and that we are using timber four times as fast as we are growing it,"

In view of such a condition in the United States, it is reasonable to suppose that very shortly there will not be any lumber or other forest products to be spared from that country for the Canadian needs; therefore, the people of Manitoba, Saskatchewan, and Alberta will look to British Columbia for their lumber. Also Ontario will likewise have to ship larger and even larger quantities of her lumber requirements from the Pacific Coast.

The great forests are here ready for the axeman. The production of lumber, shingles, boxes, paper and in fact all commodities derived from the forests, might well be twice in quantity what they are. And if Canadians will adopt the principle of using Canadian products, the whole will be required for home consumption, which will really be the condition within four or five years, or in fact just as soon as the mills can be established with the capacity to supply the demand.

The prairie and Ontario lumber dealers have been unable to get their requirements supplied from the British Columbia mills for the past year or more, and as a result have had to make up the shortage from the United States mills, or go without. The natural growth of the forests of British Columbia would reproduce annually twice the present cutting of timber, so that the quantity standing would not be depleted; provided the ravages of forest fires can be reduced to a minimum, and care is taken to give lands only suitable for forest growth a chance to reforest.

No doubt you have all noticed with considerable interest the fight which has been going on between the newspapers and latterly the Government, and some paper manufacturers in Canada, wherein the Government undertook to prevent the selling of paper in the United States until the domestic demand should be satisfied. With timber suitable for pulp and paper standing thickly over thousands of square miles in close proximity to great undeveloped water-power sites, up and down this Pacific Coast, it hardly seems reasonable that capital will be much longer wanting for the development of such sections, and thereby remove the complaint made about the great shortage of print paper. Many new lumber and shingle mills will be erected to take care of the increasing demands for building materials; also some large paper mills will be constructed within the period under consideration

The only thing standing in the way of more rapid development along those lines at present, is the fact that capital is timid about venturing into any form of industrial institution. The capitalist considers himself between two fires; on one side the labor organizations demanding more and more for themselves and insisting that the share of capital shall be less and even less of the earnings of all industries; on the other, the governments are needing ever increasing sums of money, and are constantly looking for sources from which such needs can be supplied; and it seems that it has come to be considered that the easiest means for procuring same is by taxing the industries; therefore, the man with money to invest hesitates about putting it into an industry. However, when the taxing powers take another look around and begin drawing from the idle capital, we shall no doubt see more people willing to take a chance on investments in industries for supplying the nation's wants.

Of the total production of 1,758,329,600 feet of lumber during 1919, by the mills of British Columbia, only 109,000,000 feet were exported by water, of which amount the United Kingdom took about 65,000,000 feet. The quantity of water-borne shipments would have been much larger but for the fact that there were no bottoms to be had. The Canadian Shipping Board will soon have in operation in the Pacific a respectable fleet of first-class merchantmen, making regular sailings to Australia, New Zealand, China, India, so that regular shipments of forest products can be made to all those countries.

New Ocean Services

The Canadian Pacific Ocean Service, Limited (C.P.R.), already have established a steamship service between Vancouver and the Far East, by putting into commission six steamships of an aggregate of sixty thousand tons, with three sailings per month. Such a service will inevitably bring about a large trade between the millions of Asiatic people and the people not only of British Columbia, but of the whole of Canada. The City of Vancouver will, by the very necessity of location and conditions, become a great busy port, through which will pass hundreds of thousands of tons of merchandise annually. Already she is waking up to the task which will be imposed upon her right soon, by getting under way the construction of great docks and other extensive works and harbor improvements.

Other cities of the Province are not intending to leave the whole of this ocean-borne traffic to be handled in Vancouver alone. The Dominion Government has recently completed the construction of a breakwater just without the entrance to the Victoria inner harbor, and within the protection of the great breakwater two docks have been built with sufficient berthing room for four of the largest-sized ships. Also wharf buildings for storing and taking care of the cargoes, all connected with the railway tracks, which with the outer wharves privately owned, and the inner wharves owned by the C.P.R., the Grand Trunk Pacific and

other private concerns, all put the city and port of Victoria in a most excellent position to handle all incoming cargoes, and dispatch the merchandise on to its destination. The port of Victoria must of necessity continue to grow in importance. Cargo carriers will soon be more plentiful, and the markets of all the countries bordering on the Pacific will be open to British Columbia forest products.

With the full development of the timber and pulp of the Province, which must inevitably soon be accomplished, this will give employment to thousands of hands, and be sufficient in itself to keep the coast section in a prosperous condition; however, no such thing as having to depend on one industry can happen here where nature has yielded her favors so bountifully. As has been hinted before, the undeveloped iron deposits constitute the great hidden treasure which will be found and added to the other natural bounties to complete the industrial supremacy of our Province.

Possibilities of an Iron Industry

One of the alluring possibilities for increasing the trade of this coast is to be found at Campbell River on Vancouver Island, where there is a promising deposit of iron ore, very near the Campbell River Falls, which Mr. G. R. C. Conway, in his description of the water powers of British Columbia, says, "is capable of a development of 150,000 horse power at an economical figure." Before the passage of another ten years some promoter, with a broad vision, will have that water power harnessed and put to work, converting by electric energy the iron ore into merchantable "pig." Thereafter, this Province will take first rank in the production of iron and steel, as well as in lumber, fish, coal, and copper. Then will follow the establishment of shipyards, where will be built ships for all nations, and many other industries using iron and steel.

In a great many localities where great industries are established the water is bad, the climate is too hot or too cold or perhaps both, or there is something else wrong, so that it is only endurable as a place of residence because it is necessary for the operators and employees to be there to look after their work. They would all leave if they could. No such thing is true on this coast.

An entirely unbiassed description of the climate is given by Mr. Watson Griffin in his pamphlet prepared for the Department of Trade and Commerce, entitled, "Canada the Country of the Twentieth Century." He says:

"The climate of all the British Columbia islands and the coast lands is greatly affected by the warm water of the Japan current and the winds that blow off it, so that the winters are very mild and moist. Snow seldom falls, and when it does come never stays long. Soft, warm, moisture-laden winds also blow up the long inlets of the sea, which extent many miles inland and along the river valleys, losing their moisture as they go inland, but retaining sufficient heat to greatly moderate the climate of the central and northern plateau. The most northern islands, and the mainland coast opposite them have a milder climate than Scotland; while the climate of the southern mainland coast and Vancouver Island resembles that of the south-western counties of England."

And again, touching on the subject of trade possibilities for British Columbia, the same author, under the heading "A Manufacturing Province," says:

"The farms, the forests, the mines and the fisheries of British Columbia will give employment to a large population; but one of the most important industries in the future will probably be manufacturing. With numerous water powers, great supplies of coal, all the metallic minerals, and immense forests of the finest timber, no country is better suited for iron-making and wood-working industries; while the climate is especially adapted to the manufacture of textiles. It is well known that a moist climate is most favorable to the successful manufacture of the highest grades of cotton and woollen goods, and there are many points along the coast admirably suited to textile manufactures. Immense areas of land are suitable for sheep raising. Raw cotton can be imported from the Southern States, Brazil, Australia, or India, and wool from New Zealand."

The development of the trade of our coast, like all the Dominion, would be greatly promoted by preferential tariffs with Australia, New Zealand and other states and commonwealths of the Empire, and I have faith in the constructive statesmanship of the men who will shape the policies of the various self-governing commonwealths, to expect a well-developed scheme for fostering and encouraging trade amongst themselves. With that expectation realized, there is really no limit to the trade possibilities of this Province, which instead of being considered one of the distant outposts of the Empire, will shortly come to be known as an industrial centre from which great trade routes radiate to all the states of the Empire. Quoting again the words of Mr. Griffin, I show you the great advantages of a location on this coast:

"The geographical situation of British Columbia is most favorable for trade with all the countries of the Pacific and Indian Ocean. A British manufacturing establishment with a large trade in the East, by establishing a branch in Vancouver could save over 6,800 miles of carriage in shipping goods to Japan or Siberia, over 5,000 miles in shipping to Shanghai, China, over 4,000 miles in shipping to Hongkong, about 4,900 miles in shipping to New Zealand, over 4,600 miles in shipping to Sydney, Australia, and nearly 1,000 miles in shipping to Singapore."



B. W. Coghlin
B. J. Coghlin Co., Limited, Montreal
Chairman 1920-21, Education Committee

The Problem of Technical Education*

How to Reorganize and Strengthen the National Fabric to Meet the Needs of the Future—The Part that Should be Played by Technical Education in this Important Task—What Canada is Doing to Further the Cause

By L. W. GILL, M.Sc.
Director of Technical Education for Canada

A FEW months ago I gave a short address to the Ontario Division of this Association in Toronto, and I dealt with this subject in a very general way. To-day I am going to present the subject as a problem.

You are familiar with the Technical Education Act which was passed last year by the Dominion Government, and you know that the Federal Government appropriated $10,000,000 to aid in promoting this work, this money to be distributed among the provinces covering a period of ten years, which will be approximately a million dollars a year for distribution. This is distributed subject to the condition that the provinces put up an equal amount of money for this work, and an agreement is to be reached between the Federal and Provincial Governments as to how the work is to be carried on.

Technical education as defined by the Technical Education Act is simply the form of education or training which is necessary or desirable to promote industries in Canada. That is a very broad definition indeed.

Getting Too Much Education

I have talked to a good many employers in this country since becoming interested in this work, and I find that there are more people in this country than I had anticipated who are of the opinion we are getting too much education; that young people are being educated away from employment, that the young boy in the country is being educated away from the farm, and that what we want instead of education is training, the same kind of training, so to speak, as you would give a horse—mechanical training. So that this problem is a mechanical one or it is an educational one. If we are to train our young people, our workers, to be a part of a machine, then it is a mechanical problem; if we are to deal with them as human beings and make citizens of them then it is an educational problem. For my own part I see no reason why, if you take the boy, for instance, on the farm—and the great cry is now that the boys are going away from the farm to the city, they are being educated from the farm, there is too much education—I fail to see why teaching a boy how to judge an animal properly and how to keep a record, for instance, of his dairy herd so that he can weed out the poor animals and take care of the good ones, and how to judge seed—I fail to see why that should take the boy away from the farm; I should think it would awaken an interest in the farm work and keep him on the farm, and the same way with any other industry. As I see the problem, however, as far as the farm is concerned, it is not education that is taking him away from the farm; it is because the boy knows that the people in cities are earning more money and have more time to themselves and more opportunity for recreation and pleasure. It is not education. Secondly, the policy of the Department of Labor in whose hands the administration of Technical Education has been placed, has decided on a policy of education, that this is an educational problem.

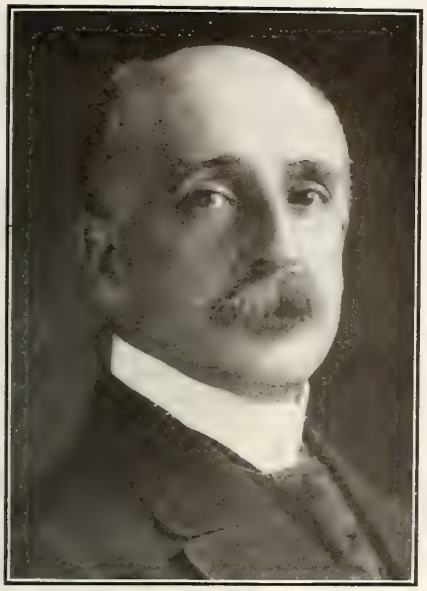
Now, in treating it as an educational problem I am going to treat the problem as a whole from the educational point of view, and just briefly touch first on some of the conditions which we have to consider in dealing with this problem.

Reorganize the National Fabric

Since the signing of the armistice in 1918, the great problem confronting every nation involved in the war has been how to reorganize and strengthen its national fabric to meet the needs of the future. Men in all walks of life have been discussing plans for reconstructing everything, including our educational system. Rarely, however, does any of us admit that we ourselves are also in need of reconstruction. Notwithstanding this, one can observe a great change in the mental outlook of most people, and this change is still going on. Our standards have changed radically. Relative values have also changed. As an illustration of this change one has only to point to the recent appointment as head of one of our leading universities of a man who is not a college graduate. Prior to the war such an appointment would never have been considered. And this appointment is by no means an experiment, as a certain newspaper has suggested, but is an indication of a definite change in policy. Similar changes are observable in our industrial development. The demand is for men with character, vision and administrative ability rather than for men possessed of special knowledge. Far-reaching changes are also to be noted in the relationship between employers and employed. The policy of establishing Joint Industrial Councils on the principle of the Whitley scheme in England is rapidly growing in favor in Canada. This movement was unanimously endorsed by the representatives of both employer and employed at the Industrial Conference last fall. No organized effort is being made to forward this movement, yet there are eleven of these Joint Councils now established in Canada. The most important step in this direction was taken about two weeks ago when the Association of Canadian Building and Construction Industries and the Trades and Labor Congress of Canada agreed to organize a Joint *National* Council. This Council is now being organized. The chairman is to be appointed by the Minister of Labor. Many other changes in our national life may be noted, but I will refer to only one more, viz., the enlargement of our responsibilities as citizens as a consequence of recent steps taken toward a fuller expression of our nationality. Our country has taken its place and proved its worth not only on the field of battle, but also as a recognized member of international councils. The war has done much to create in Canada a national spirit. As this was acquired through stress of circumstances which we did not control, and not through any initial effort on our part, there is danger that it may soon be lost. To avoid this, means must be adopted to develop it and give it more tangible expression. But how many of us are giving any thought to these matters? How many realize that every citizen must take a keener in-

* Address delivered by Professor Gill at the annual general meeting, C.M.A., Vancouver, June 9, 1920.

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terest in the state if we are to develop our national spirit to an extent which will enable us to carry with becoming dignity those increased responsibilities which we have taken on as a people? And how many ever think of how the reputation which Canada won during the war is to be maintained and enlarged? No doubt a few of our people are giving some thought to these questions, but what about the mass? What about our young people? Are they receiving any instruction or enlightenment on these very vital matters? Practically none; and yet in a few short years they must assume all the responsibilities referred to. It is in this respect that our system of education is particularly weak and in need of reconstruction or extension.

It is gratifying, however, to know some efforts are now being made to remedy this defect.

Youth a Valuable Raw Material

This brings before us the subject of education in a general way. Before speaking on technical education, which is the particular topic for discussion, I would like to say a few words about the subject of education from the broadest viewpoint. First of all, it is to be noted that in the youth of our country we have the most valuable raw material of which the country is possessed. This raw material is very diversified, the variety being limited only by the number of individuals. Some are suited for development to perform tasks which require a maximum of mental effort and a minimum of physical effort, while others are suited for tasks which require more physical effort than mental. It is the function of our educational system to sort and develop this raw material so that it will be of maximum usefulness in building up and enriching our national structure. In other words, the true function of an educational system is to produce citizens of the highest order possible from the raw material available. The degree of success attained in performing this great national work is the measure of the real efficiency of the system.

The problem of sorting the raw material is beset with many difficulties, as it is entangled with the very roots of our social order. For this reason no systematic attempt has been made to do this work. Any scheme for this purpose, to be effective, must be based on a consideration of the natural capacity or native ability of the individual. Hence it is primarily a psycological problem. Under our present social system educational opportunities beyond the elementary school are largely dependent on the size of the parent's bank account. To some extent the youth in the cities have an advantage over those in the rural districts. In the case of those whom fortune favors with more advanced instruction, the selection of a definite career is left largely to fate or chance. In this direction there is a great field awaiting development. It is to be hoped that before long we may find some rational method by which we can do this very important work.

Leaving the question of sorting, let us now consider the process of development. It has already been noted that the ultimate objective of education is citizenship. This means that certain qualifications must be developed in each individual. The ultimate and essential qualification is productive capacity, mental or physical, or both. A healthy man who cannot earn enough by honest effort to support himself and family is certainly not a good citizen. The second essential is a knowledge of, an interest in, and a due regard for our social and economic structure of which he forms an integral part. Included in this is goodwill, desire and ability to cooperate with others. According to Pericles the Athenians regarded a man who took no interest in public affairs not as a harmless, but as a useless, character. Other requirements are: proper standards of conduct and character, good habits, ability to take enjoyment out of work as well as out of recreation, etc. A perfect system of education should develop all these qualities in each individual to an extent which is limited only by inborn capacity.

Education System as it is

Let us now look at our education system as it now exists and see how nearly it approaches this ideal system. First, we have a system of elementary schools which are intended to provide free instruction to every child without exception. A reasonable effort is made by our provincial governments to

provide this instruction, but there are many children, especially in the rural districts, who receive very little or no instruction because they do not attend school. The result is that about 10 per cent. of the children in Canada grow up to maturity with little or no education. In these elementary schools the child is taught to read and write, and the use of figures. Facility in this work was regarded in the past as the framework of education. To-day these are regarded more as tools by means of which an education may be acquired. Incidentally, however, these acquirements involve development of memory and a certain amount of hand and eye training. In recent years manual training and nature study have been introduced into some of the elementary schools. As the child matures the study of history, geography and language is taken up. The whole course of instruction is so planned that the normal child will complete the course before reaching the age of 14 years. The majority of our provinces have a law which provides for compulsory attendance up to 14 years, but it is not always enforced even in the cities, and in many rural districts the school is so far from the home that the children cannot reach it. The result of these conditions is that a large percentage of our children drop out of school between the ages of 11 and 14. Public school reports indicate that only 40 to 45 per cent. of the children attend up to the full age of 14. Some attend beyond that age, but, altogether, less than 30 per cent. complete the eight grades which make up the whole course of instruction. Comments on these figures are not necessary, as they cry aloud to heaven. In the light of these facts the question naturally arises, what does the elementary school do toward developing the children into citizens? Do they develop any of the requirements previously mentioned? My answer is that, beyond providing the tools previously referred to and preparing the mind of the child for real education, they do very little. Much more could be done in developing conduct and character, but time will not permit further reference to this. Such then is the condition of our material as it leaves the elementary school.

Secondary School System

For those who wish to get instruction of a higher grade than that given in the elementary school, we have a system of secondary schools—commonly known as grammar schools, high schools and collegiate institutes. These schools are organized and conducted primarily to provide instruction for those who have sorted themselves and have decided to take up the vocation of teaching or some one of the learned professions. A certain number elect to enter these schools for the purpose of collecting information which they think will be of use to them in after life. Others enter because they or their parents think it will give them a better social standing.

Of the 30 per cent. who complete the work of the elementary school, only about one-third or 10 per cent. of the whole number of children enter the secondary schools. Of this 10 per cent. only one-third or 3 per cent. of the whole ever complete the work of the secondary school. These figures are only approximate for the reason that complete and accurate statistics are not available.

For those who wish to still further develop their mental faculties and those who wish to enter the professions, we have our universities. Of the 3 per cent. who complete the work of the secondary school less than one-third, or less than 1 per cent. of the whole number, enter the university. Taking teachers and those training for professions together they make about 1 per cent. We thus reach the conclusion that our educational system provides vocational training for only 1 per cent. of its youth. In other words, 99 per cent. of our youth have to fit themselves as best they can for useful occupation. 90 per cent. receive no instruction or guidance whatever after they reach 14 years, 70 per cent. get only a part (60 to 90 per cent.) of the instruction given in the elementary schools, and 10 per cent. get practically no instruction. These figures indicate very clearly that our present system falls far short of the perfect system previously outlined. Figures, however, do not always reveal all the facts. The figures indicate that about 90 per cent. of our youth receive no instruction after they reach the age of 14, but they do not reveal the very important fact that for educational purposes the years from 14 to 18 are the most valuable. At about 14 the boy begins to think for himself and reason; begins to think about what his life work will be. On the other hand, he starts to stray away from the home and its influences; social habits begin to take definite form. Yet during these four precious years which are so favorable for the real development of the boy, 90 per cent. of our youth get no guidance whatever. They are allowed to drift out into the world to fight the battle of life as best they can. And we wonder why our working classes listen to agitators, why they do not understand the organization of society. It is to our credit, however, that some steps have been made toward remedying this great weakness in our system of national development.

The Problem of Technical Education

Last year the Federal Government passed the Technical Education Act, the purpose of which is to promote and assist technical education in Canada. As defined by the Act, "technical education" means any form of vocational, technical, or industrial education or instruction which is considered necessary or desirable to aid in promoting industry. The review of our educational system which I have just made gives some idea of the problem which is involved in the purpose of this Act. It has been noted that our present systems provide vocational training for only about 1 per cent. of our young people. In other words, it develops only 1 per cent. to full citizenship. But the 99 per cent. have just as much right to have free, or nearly free, training for full citizenship as the 1 per cent. And it will be of great advantage to the country if they are so trained. Briefly stated, then, the problem of technical education is to provide instruction and vocational training for 99 per cent. of our young people whose degree of development varies from the standard of high school leaving to illiteracy. It is a problem which can never be completely solved, because of the enormous expense involved. But even if we attempt to develop one-half of the 99 per cent. the problem is still a stupendous one. For the purpose of further discussion let us try to visualize what would be necessary to develop, say, 25 per cent. instead of 1 per cent. Our present high schools have class-room accommodation for an average of about 7 per cent., but only a small amount of space for equipment which would be necessary for vocational training. If an adequate equipment for vocational training were provided these schools would not accommodate more than 5 per cent. It follows then that if we are to give vocational training to 25 per cent. of our young people we must provide accommodation equal to five times the present high school accommodation; also the necessary equipment and teachers. Where are we to get the money to provide these? Under the provisions of the Technical Education Act the Dominion Government has agreed to pay to the provinces, for this purpose, an average of $1,000,000 a year for ten years, on condition that the provincial governments spend dollar for dollar on this work. Speaking generally, I may state that

(*Continued on page* 248.)

From Our Gallery of Convention Snap Shots



J. O. Thorn

Metallic Roofing Co. of Canada, Limited, Winnipeg



S. R. Parsons

British-American Oil Co., Limited, Toronto



J. A. Reid

Hartt Boot & Shoe Co., Limited, Fredericton, N.B.

An Estimate of Canada's New Taxation

By SIR JOHN WILLISON
President, Canadian Reconstruction Association

CANADIAN manufacturers will welcome the changes in the Drayton budget. While the new tariff regulations are still open to criticism, at least they are appreciably better now than in their initial form. When the new taxes were announced, the Canadian Reconstruction Association instituted a careful and detailed analysis and a comparison with the revenue measures in the United States. It was found that the Canadian taxes apply to a much larger number of commodities than do similar taxes in the United States, that the non-taxable limits are lower in many cases in Canada than in the United States, that the Canadian rates are higher and that the Canadian legislation also differs from that of the Republic in the fact that the American levy in most cases is not on the entire retail selling price of the taxable commodities, but only on that part of the retail selling price in excess of specified exemptions. As a result, the Canadian taxes in some instances are many times higher than those collected south of the boundary. It was found, moreover, that Canadian taxation, is heavier than that in effect in any similar country in the world.

Just before the changes in the budget were announced, the Canadian Reconstruction Association called attention to these facts and contended that unless the taxes were changed they would add tremendously to the difficulties of domestic readjustment and seriously complicate the industrial situation. In a public statement, the president of the Association said: "While recognizing that heavy taxation is inevitable under present conditions, it is the mature judgment of the Association as the result of such investigation that, unless amended, the new taxes will hasten serious depression in this country and gravely aggravate the problems of economic readjustment after the derangements caused by the war.

"Three weeks' experience with the new Canadian levies as well as considerations of sound economic practice, support the contention that the taxes on such commodities as boots and shoes, clothing, etc., should be revised and made to apply only on the excess over the non-taxable limits. The present taxes place a premium on the manufacture of poor quality goods and, if continued, not only would lower the present standards of Canadian productions in many cases, but in conjunction with the inevitable curtailment of buying of which there is increasing evidence, they threaten also to force many Canadian manufacturing plants to close their doors. One Canadian boot and shoe factory states that it has received from retail customers throughout the country, since the budget was announced, cancellations for more than 30 per cent of the entire business booked for the fall, and that the company's salesmen have done practically no business whatever since the tax was imposed.

"On national considerations alone, the Association urges upon the Government that the new taxes be made to apply only on that portion of the retail selling prices in excess of the non-taxable limits."

The attitude of the Association towards the revised budget was expressed in a further public statement in which the Minister of Finance was given credit for recasting the budget after its defects had become apparent. "Nevertheless," the statement continued, "it should be recognized that at best the so-called excise taxes are a clumsy, inconvenient and annoying means of raising revenue. Their only justification is that the Government had no alternative which was practicable under present political and other conditions in this country.

"The new levies in the original budget were calculated to raise about $100,000,000 of revenue, including that derived from the increase in the Income Tax. As a result of the amendments, the estimated yield will be even less. The Government has advanced the rates of the Canadian Income Tax until they are higher than those in force in the United States. The Canadian Business Profits War Tax for the current year is higher than that in any country in the world, with the possible exception of Great Britain, where rates recently have been increased. The Minister of Finance had no other practical course except excise taxation on goods used by the Canadian people.

"In comparison with the vexatious internal taxation provided in the new budget, customs duties this year, after removal of the 7½ per cent. war tax, are estimated to yield at least $167,000,000. It has been proposed more or less seriously that other taxation be substituted for the customs

tariff. The Canadian people should frankly recognize that such a course would only be possible by increasing excise taxation on food, clothing, and other commodities required by the people of this country. The customs tariff, in addition to promoting Canadian national development and helping in the building up of new taxpaying national wealth, is collected with a minimum of inconvenience. Moreover, there is abundant reason to believe that the cost of administration of the customs tariff is even less than the cost of enforcing the new excise duties, and that the total burden on the Canadian people as a result of taxation on imports will be less than that resulting from the complicated and difficult system of so-called 'luxury taxes' and taxes on sales.

"By the amendment of the sales tax, Sir Henry Drayton has recognized the legitimate and, in many cases, necessary function of the wholesaler or jobber. At the same time, operation of the tax will tend mildly to discourage speculative operations and a multiplicity of middlemen, inasmuch as a retailer buying direct from the manufacturer or from the first wholesaler will have an advantage over those buying in a more roundabout way."

The Association continues active with its general educational programme. Since the first of the year numerous publications have been issued, including its leaflet, "Ten Commandments for Canadian Trade"; a pamphlet, "Ways to National Prosperity," urging development of natural resources and support of the home market; and a second pamphlet, "The Outlook for Canada," containing my speech before the Canadian Club at Halifax during my recent visit to the Maritime Provinces, where I also spoke on social and industrial conditions at the Acadia University, Wolfville, and spoke again at Truro at the headquarters of the United Farmers of Nova Scotia, under the auspices of the Canadian Club. The president of the United Farmers and other representative farmers attended the meeting. While returning to Toronto, I spoke at length on the work of the Association at the special meeting of our eastern subscribers at Montreal, and I made a similar statement to our Ontario subscribers at a recent luncheon in Toronto.

During recent weeks the Association has revised its weekly Information Service, confining it largely to Canadian affairs and considerably increasing its circulation. It has also reprinted 175,000 copies of its small pictorial Made in Canada cards which are now available to any manufacturers or retailers who may wish to circulate them.

Copies of publications issued this year by the Association may be secured free of charge upon application to the Head Office, Toronto.

Maritime Province Legislation

Resume of Recent Legislation Passed by the N. S. and N. B. Legislatures

The following is a brief summary of the acts affecting the manufacturing industry, which were passed at the recent sessions of the New Brunswick and Nova Scotia Legislatures:

N. B. Workmen's Compensation

The chief amendments made to the Workmen's Compensation Act, are:

(1) In case of permanent partial disability, the maximum total compensation to be paid was raised from $1,500 to $2,500.

(2) In other cases, the limit of $5,500 was removed.

(3) The payments to widows was raised from $20 to $30, and to children from $5 to $7.50.

(4) The allowance towards the expenses of burial was increased from $75.00 to $100.00.

(5) Full medical aid is to be provided.

N. B. Factories Act

An Act was passed amending and consolidating the several acts relating to the protection of persons employed in factories. The new departure under this enactment is that the factory inspectors are brought under the jurisdiction of the Workmen's Compensation Board. The Board is also given authority to appoint "Safety First" instructors.

Development of Electrical Power in N.B.

An Act entitled, "The New Brunswick Water Power Act" was passed, providing for the appointment of a commission, which by order-in-council may be authorized to expropriate any available sites and construct, maintain and operate machinery and plant for generating electrical energy from water power, coal, peat, gas or oil. It is hoped that this bill will be the means towards the early development of cheaper power in New Brunswick.

Tax on Unlicensed Insurance (N.B.)

"The Corporations Tax Act," passed at the recent session, provided for a tax of 2 per cent. of the "net premiums" paid by any person or company accepting insurance in any company not holding a Dominion license or a provincial permit. "Net Premiums" in the case of a mutual company, shall mean the gross premium deposited, less the unabsorbed portion of the premium actually returned or credited to the policy holder, but shall include interest at a legal rate upon such unabsorbed premium during the time it is deposited.

N.S. Employment Agencies

An Act entitled "Employment Agencies Act" was passed, providing that no person, firm, corporation or association shall collect or receive, directly or indirectly, any fee or compensation for procuring or causing to be sent from or to any place within the province, any person seeking employment, or for giving information regarding employers seeking employees or employees seeking employment. The Governor-in-Council, however, may declare that the provisions shall not apply to any person or class of persons. The intention of this bill is to do away with fraudulent employment agencies.

N.S. Workmen's Compensation Act

An Act amending the Workmen's Compensation Act was passed, the chief feature being an increase in the indemnities payable to the dependants in the case of death. The

widows will receive $30.00 instead of $20.00, and the children $7.50 instead of $5.00.

An Act entitled "Minimum Wage for Women Act," was passed at the recent session of the Nova Scotia Legislature, providing for the appointment of a minimum wage board, which shall have authority to establish standards of minimum wages and hours of employment for women employed in factories and shops, and where not inconsistent with the Factories Act, declare what are proper sanitary conditions for such employees.

Iron and Steel from Native Ores

An Act to encourage the making of iron and steel from native ores (within the Province of Nova Scotia) was passed and provides that the Governor-in-Council may by order, refund the whole or any part of the royalty paid on coal used within the province, in the making of iron or steel, to any company with a daily output of not less than two hundred tons, where such iron or steel is made from ore fifty per cent. of which is mined within the province.

The mining of iron ore within this province has been languishing for a number of years by reason of the importation of ores from other countries, chiefly from Newfoundland, and the intention of this bill is to stimulate the development of resources within the province and the subsequent increase in employment.

Mineral Rights (Nova Scotia)

One of the last measures adopted by the Nova Scotia Legislature before prorogation, was an Act vesting in the Crown all minerals, excepting limestone and building materials. This law applies to all the lands in the province and provides that the owner of the soil shall have the first right to obtain licenses to work the minerals on their lands. It also provides machinery whereby the owners of the soil, or those who have obtained mineral concessions from them, may obtain compensation for any outlay they may have made in developing mineral deposits, in the event of licenses being granted to others.

Vancouver Exhibition

Entries to Close on September 1 for Exhibition to be Held From September 11 to 18

The prize list for the 1920 Vancouver Exhibition, to be held from September 11 to 18, has been issued and contains a striking array of prizes for this year's event. Naturally, chief attention will centre in the exhibits of cattle and agricultural produce, but emphasis is also being laid on manufactures. The Industrial Department will be under the direction of Messrs. J. H. Falconer and James Ramsay and will have its headquarters in the Manufacturers' Building. Articles will be received for exhibition only. In response to inquiries made of manufacturers, it appears to be the desire of a very large majority that prizes shall not be offered in the general line of manufactures. It will, however, be at the option of the judges to recognize, by the awarding of medals or diplomas, any exhibit where the extent or merit of the same would seem to call for special recognition.



Teaching the Flying Boat to Fly

A striking picture, showing the new flying boat "Dorie" of the Spanish River Pulp & Paper Mills, being lowered into the water by a big crane. The boat will be used in the work of protecting the Company's timber limits. *The illustration is reproduced by courtesy of the Spanish River News.*



The C.M.A. Excursion Special in the Mountains

Registration at 1920 Annual Meeting

Vancouver, June 7, 8 and 9, 1920

FROM OUTSIDE BRITISH COLUMBIA.

Acton, James	Acton Publishing Co.	Toronto.
Angus, George	Angus and Stonehouse	Toronto.
Armstrong, C. M.	The Sewsure Mfg. Co.	Toronto.
Bertram, H.	The Dundas Co.	Ontario.
Balfour, R. H.	Eugene Phillips Electric Co.	Montreal
Black, D. J.	Steel Co. of Canada	
Brigden, Geo.	Brigden's Limited	Toronto.
Bristol, J. R. K.		Toronto.
Brittain, A. H.	Maritime Fish Co.	Montreal
Brown, A. D.	Ramsay and Son Co., Ltd.	Montreal
Brown, C. R.	Can. Drawn Steel Co.	Hamilton.
Brown, S. B.	C.M.A.	Toronto.
Bryan, A. E.	Canadian Govt. Commissioner	Yokohama.
Burns, E.	Warren Bros.	Toronto.
Buchanan, W. A.	H. C. Tugwell and Co., Ltd.	Toronto.
Burton, E. C.	Can. Link and Belt Co.	Toronto.
Christie, Mrs. W. A. Stewart, Mrs.	Christie Trunk and Bag Co.	Amherst.
Crombie, W. J.	Bridge Carbon Paper Co.	Montreal.
Carr, W. H.	Kerr and Combes Fdy. Co.	Hamilton.
Conans, G. D.	E. D. Smith and Son	Winond, Ont.
Combes, G. A.	Kerr and Combes Fdy. Co.	Hamilton.
Cork, S. L.	Royal Bank	Winnipeg.
Carpenter, G. E.	C.M.A.	Winnipeg.
Callaghan, J. C.	Steel Co. of Canada	Hamilton.
Crysler, R. L.	Can. Carbonate Co.	Montreal.
Campbell, D. J.	Dodge Mfg. Co.	Toronto.
Campbell, F. J.	Canada Paper Co.	Windsor.
Carnegie, W. R.	Berry Bros.	Walkerville.
Dunn, W. H.	Borden Milk Co.	Montreal.
Dunn, G. T.	Can. Steel and Wire Co.	Hamilton.
Duffield, W. H.	John McPherson Co.	Hamilton.
Dolan, W. E.	Office Specialty Mfg. Co.	Newmarket.
Davies, E.	A. Davis and Son Ltd.	Kingston.
Davis, A.	Davis Leather Co.	Newmarket.
Fleming, Atwell, jr.	Atwell Fleming Printing Co. Ltd.	Toronto.
Fell, C. P.	Dominion Securities Corp.	Toronto.
Finlay, J. M.	Ritchie and Ramsay, Ltd.	Toronto.
Gooderham, H. S.	Dominion Battery Co.	Toronto.
Gunn, Hector	Gunn's Ltd.	Toronto.
Griffith, D. F.	B. Greening Wire Co.	Hamilton.
Gillies, D. B.	C.M.A.	Toronto.
Gill, L. W.	Director of Technical Education.	Ottawa
Gartshore, W. M.	McClary Mfg. Co.	London, Ont
Ganong, A. D.	Ganong Bros., Ltd.	St. Stephen's, N.B.
Gunn, A.	Gunn, Limited	Toronto.
Home, W.	Berry Bros.	Toronto.
Hutchings, E. F.	Great West Saddlery Co.	Winnipeg.
Howard, T. P.	Phoenix Bridge & Iron Works. President C.M.A.	Montreal.
Haskins, R. C.	International Harvester	Chicago.
Hastie, W. J.	Central Canada T.S.C.	Toronto.
Hayes, A. J.	Champion Spark Plug Co. of Canada	Windsor
Henderson, O. B.	Davis and Henderson	Toronto.
Innes, W.	P. Burns and Co.	Calgary.
Ilsley, F. V.	Standard Bank	Hamilton
Ince, J. H.	Toronto Hardware Mfg. Co.	Toronto.
Jones, G. W.	G. W. Jones and Co.	Winnipeg.
Jamieson, R. E.	Can. Con. Rubber Co.	Montreal.
Keens, J. H.	Fashion Waists	Toronto.
Kerr, James	Kerr and Combes Fdy. Co.	Hamilton.
Kerr, W. H.	Kerr and Combes Fdy. Co.	Hamilton.
Kimball, J. H.	John Kimball and Co., Ltd.	St. John, N.B.
Kingsley, E. J.	Canadian Cottons, Ltd.	Marysville, N.B.
Lawson, F. G.	W. L. McKinnon and Co.	Toronto.
Langmuir, F. L.	M. Langmuir Mfg. Co.	Toronto.
Morrison, C. E.	Jas. Morrison Brass Co.	Toronto.
Munro, James	Wm. Munro and Son	Toronto
Morris, M.	Canadian Linderman Co.	Woodstock.
Morgan, Miss M. A.	C.M.A.	Toronto
Miner, W. H.	Miner Rubber Co.	Granby.
Miller, F. W.	Canadian Fairbanks Morse Co.	Winnipeg.
Michaud, W. J.	Brunner Mond Co.	Amherstburg.
Meyers, G. E.	Office Specialty Mfg. Co.	Winnipeg.
Merrill, G. Spencer.	Arnet-Solvoy Co.	Syracuse, N.Y.
Madley, E. F.	Canadian Hydraulic Mach. Co.	Montreal.
McIntyre, R. L.	McGregor and McIntyre	Toronto.
Macdonald, H.	C.M.A.	Toronto.
Nicholson, Rex. E.	Algoma Steel Corp.	Toronto.
Neill, B. H.	Canadian Machinery Corp.	Galt.
Naismith, Jas.	Capital Brewing Co.	Ottawa.
Neild, R. R.	John Inglis Co.	Toronto.
McNeely, J.	Alberta Linseed Oil Mills	Medicine Hat.
McMurkry, W. J.	Gold Medal Furniture Co.	Toronto.
McMahon, C. A.	Union Drawn Steel Co.	Hamilton.
McLaughlin, G. W.	McLaughlin Motor Co.	Oshawa.
McKinnon, J. S.	S. F. McKinnon and Co., Ltd.	Toronto.
McDiarmid, A. R.	McDiarmid and Clarke	Brandon
McCrae, G. L.	Goodyear Tire and Rubber Co.	Toronto.
McCormick, B. J.	Canadian Foundries and Forgings Co.	Welland.
Prevey, W. W.	Edmonton City Dairy	Edmonton.
Parsons, S. R.	British American Oil Co.	Toronto.
Rutherford, W. J.	Wm. Rutherford and Sons	Montreal.
Rutherford, A. B.	Wm. Rutherford and Sons	Montreal.
Rouse, Miss J.	C.M.A.	Toronto.
Rous, H. L.	Rous and Mann	Toronto.
Rolland, S. J. B.	Rolland Paper Co.	Montreal.
Roden, T.	Roden Bros., Ltd.	Toronto.
Roden, Frank	Roden Bros., Ltd.	Toronto
Robson, C. G.	W. H. Clark Co.	Edmonton.
Robertson, E. A.	Montreal Cottons, Ltd.	Montreal.
Robertson, C. H.	Imperial Knitting Co.	Montreal.
Reid, J. A.	Hartt Boot and Shoe Co.	Fredericton, N.B.
Southam, W. W.	Southam Press Ltd.	Montreal.
Smallwood, R. L.	Dodge Mfg. Co.	Toronto.
Sloan, F. M.	J. Sloan and Co.	Toronto
Sherrard, J. H.	Simmons, Ltd.	Montreal
Sherrard, Edwin	Simmons, Ltd.	Montreal.
Shaw, J. R.	Canada Furniture Co.	Woodstock.
Seens, J. W.	Canadian Bridge Co.	Walkerville
Schreiter, A. G.	A. G. Schreiter and Co.	Kitchener.
Sangster, J. R.	Page Printing and Binding Co.	Sherbrooke.
Southcott, H.	T. H. Wethey, Ltd.	St. Catharines.
Stearns, C. M.	Lake-Megantic Pulp Co.	Quebec.
Stephens, H. A.	Scythes and Co. Ltd.	Toronto.

Steele, H.	Official Photographer	Winnipeg.
Stewart, H. P.	Alberta Clay Products Co.	Medicine Hat.
Stirrett, J. T.	General Secretary C.M.A.	Toronto.
Stewart, F. W.	Cluett Peabody and Co.	Montreal.
Travers, F. J.	Travers Aprons, Ltd.	Ottawa.
Tyler, H. E.	Chevrolet Motor Co.	Oshawa.
Thorn, J. O.	Metallic Roofing Co.	Winnipeg.
Thomas, A. W.	Copp, Clark Co.	Toronto.
Wright, H. G.	E. T. Wright and Co.	Hamilton.
Wilson, E. W.	Canadian Car and Fdy. Co.	Montreal.
Wilmott, J. S.	Merchants Bank	Brandon.
Whitman, A. J.	A. Whitman, Ltd.	Halifax.
Way, A. C.	First National Bank	Los Angeles.
Warren, A. E.	Canadian National Ry.	Winnipeg.
Woodcock, Miss	C.M.A.	Toronto.
Walsh, J. E.	C.M.A., General Manager	Toronto.
Tant, N. S. Van	Canadian Foundries and Forgings Co.	Winnipeg.

FROM BRITISH COLUMBIA.

Adamson, R.	B.C. Sugar Refining Co.	Vancouver.
Allan, W. A.	Dominion Rubber System	Vancouver.
Anderson, Jas.	St. Mungo Canning Co.	N. Westminster.
Arnett, R. F.	Dryden Pulp and Paper Co.	Vancouver.
Beveridge, G. L.	Wm. Braid and Co.	Vancouver.
Bigger, H. J.	American Can Company	Vancouver.
Bland, W. Elgie	Chemical Scientific Engravers Co.	Vancouver.
Bolduc, M.	Kelly Confection Co.	Vancouver.
Broadfoot, Percy	Canadian Bag Co.	Vancouver.
Burke, F. E.	Wallace Fisheries Ltd.	Vancouver.
Campbell, Geo. A.	Geo. A. Campbell and Co.	Vancouver.
Cameron, J. O.	Cameron Lumber Co.	Victoria.
Carson, Wm.	H. Birks and Son, Ltd.	Vancouver.
Cohen, A. C.	Universal Knitting Co.	Vancouver.
De Wolf, F. K.	Robin Hood Mills	Vancouver.
Dietrick, Chas.		Vancouver.
D'Auria, V.	Eaton Film Corp.	Vancouver.
Dixon, T. S.	Gault Bros. Ltd.	Vancouver.
DesBrisay, M.	Desbrisay and Co.	Vancouver.
Erb, A. E.	Davies Paper Box Co.	Vancouver.
Eakins, H. G.	Druggists Sundries Co.	Vancouver.
Galbraith, F. A.	Brackman-Kerr Milling Co.	Vancouver.
Galloway, J.	McClary Manufacturing Co.	Vancouver.
Guertin, L. A.	Cut-to-Fit Buildings	Vancouver.
Givin, A. W.	Taylor Forbes Co.	Vancouver.
Gosnell, W.	Nelson Brewing Co.	Nelson.
Goodrich, C. F.	Sooke Harbor Fishing and Packing Co.	Victoria.
Heaps, John	Heaps Engineering Co.	N. Westminster.
Hager, A. L.	Canadian Fishing Co.	Vancouver.
Hall, J. E.	Vancouver Milling and Grain	Vancouver.
Hall, W. K.	Canada Carbonate Co.	Vancouver.
Haine, Frank	Mrs. Haine, Limited	Vancouver.
Hamber, E. W.	B.C. Mills Timber and Trading Co.	Vancouver.
Hendry, A. J.	B.C. Mills Timber and Trading Co.	Vancouver.
Herrmann, G. E.	Vancouver Creosoting Co.	Vancouver.
Hughes, A. L.	J. Chew Lumber and Shingle Co.	Vancouver.
Johnson, J. W. F.	B.C. Sugar Refining Co.	Vancouver.
Jamieson, W. A.	Jamieson Coffee Co.	Victoria.
Kennedy, C. H.	A. R. Williams Co.	Vancouver.
Kerr, C. H.	Kerr Mfg. Co.	Vancouver.
Knight, E. C.	Vancouver Lumber Co.	Vancouver.
Kostman, J. L.	Famous Cloak and Suit Co.	Vancouver.
Leckie, H. S.	J. Leckie Co.	Vancouver.
Mason, A. E.	Imperial Grain and Milling Co.	Vancouver.
Mather, G.	Canada Foundries and Forgings	Vancouver.
De Merrall, L. C.	Martin Senour Co.	Vancouver.
Malkin, J. P. D.	W. H. Malkin Co.	Vancouver.
Millerd, F.	Gosse Millerd Packing Co.	Vancouver.
Morrison, J. R.	J. R. Morrison Co.	Vancouver.
McDougall, H. H.	Morrison Steel and Wire Co.	Vancouver.
McDonald, J. H.	B.C. Manufacturing Co.	N. Westminster.
McMartin, J. D.	Office Specialty Mfg. Co.	Vancouver.
McCoy, D. B.	Steel Co. of Canada	Vancouver.
McIntosh, W. R. W.	Kelly Douglas Co.	Vancouver.
McKeough, M. H.	Ballard Drop Forge Co.	Vancouver.
MacLaren, H.	Simmons, Limited	Vancouver.
McLennan, K. A.	Robin Hood Mills	Vancouver.
McLennan, R. P.	McLennan, McFeely, Co.	Vancouver.
Nash, Lorne	Cluett Peabody Co.	Vancouver.
Parsons, Frank	Gregory Tire and Rubber Co.	Vancouver.
Pearson, O. W.	Swift Canadian Co.	Vancouver.
Phillips, O.	J. Coughlan and Sons	Vancouver.
Pirrie, A. W.	Sabulite Explosive Ltd.	Vancouver.
Prenter, S. L.	Vancouver Breweries	Vancouver.
Quigley, F. A.	Vancouver Knitting Co.	Vancouver.
Russell, A. L.	Clayburn Co., Ltd.	Vancouver.
Sangster, Chas.	Canadian Ingersoll Rand Co.	Vancouver.
Sharpe, R. B.	Pacific Box Co.	Vancouver.
Sharpe, A. E.	B.C. Box Co.	Vancouver.
Streight, H. M.	Brackman-Ker Milling Co.	N. Westminster.
Duff Stuart, General	Clarke and Stuart Co.	Vancouver.
Tait, J. S.	J. S. Tait Co.	Vancouver.
Taylor, F. B.	Hardwood Lumber Co.	Vancouver.
Thomson, J. B.	J. B. Thomson and Sons	Vancouver.
Timms, A. H.	A. H. Timms	Vancouver.
Todhunter, J. G.	Clarke and Stuart Co.	Vancouver.
Tomlin, Edwin	B.C. Cement Co., Ltd.	Victoria.
Turnbull, A. S.	L'Air Liquide Society	Vancouver.
Van Dusen, W. J.	Georgetown Spruce and Cedar Co.	Vancouver.
Weeks, A. B.	Canadian North West Steel	Vancouver.
White, B. D.	Pacific Roofing Co.	Vancouver.
Wheeler, J. W.	Summerland Lumber Co.	Summerland.
Wooster, G. W.	Granby Con. M.S. and P. Co.	Vancouver.
Wright, L. C.	Oppenheimer Bros., Ltd.	Vancouver.
Wrigley, Wm.	Wm. Wrigley, Junr., Co.	Vancouver.

The C. M. A. Special

Transportation Arrangements for the Trip Worked out With the Utmost Smoothness

On May 29th, at 9.20 p.m., standard time, the C.M.A. special train pulled out of the Union station, Toronto, via C.P.R., the passengers listed numbering approximately 150. These passengers represented the manufacturing concerns from all parts of eastern and western Canada, in practically every line of industry.

The manner in which this large gathering was handled certainly speaks well for the services of the Canadian Pacific and Canadian National Railways. Everything seemed to move like a perfect machine, and at the completion of the through trip all those who had remained with the party had nothing but praise for this service.

The train consisted of seven standard sleeping cars, two lake type and one mountain type compartment, together with the necessary dining and baggage cars to accommodate the various passengers.

The crew numbered 36 and were in attendance to carry out their various duties at all times. The Canadian Pacific Railway instructed their district passenger agent, Toronto—Mr. W. B. Howard—to take charge of the services of the Canadian Pacific Railway; and the Canadian National Railways instructed their district passenger agent at Edmonton, Mr. J. Madill, to take charge of the services on the lines of the Canadian National Railway.

The equipment was carefully inspected and kept in good condition throughout the journey. With the exception of one point the train was on time at every place it was necessary to stop. For the purpose of providing comfortable accommodation at certain places where it was necessary to remain over night, very satisfactory arrangements were made in the way of suppying rooms at hotels and various other accommodations.

The train was conveniently located at all points and a great number of the members used it for sleeping accommodation.

Nearly 6,000 Miles

In their trip from Toronto to the Pacific Coast and return the C.M.A. party covered nearly 6,000 miles, or to be exact 5,852.7 miles. This was made up as follows:

Toronto—Winnipeg	1232.4	Victoria—Vancouver	58.0
Winnipeg — Medicine Hat	656.3	Vancouver—Calgary	641.8
Medicine Hat—Lethbridge	115.5	Calgary—Winnipeg	958.4
Lethbridge—Calgary	140.2	Winnipeg—Fort William	419.3
Calgary—Edmonton	194.1	Fort William — Pt. McNicoll	500.0
Edmonton—Vancouver	770.6	Pt. McNicoll—Toronto	108.1
Vancouver—Victoria	58.0	Total	5852.7

ACHIEVEMENT

MADE IN CANADA

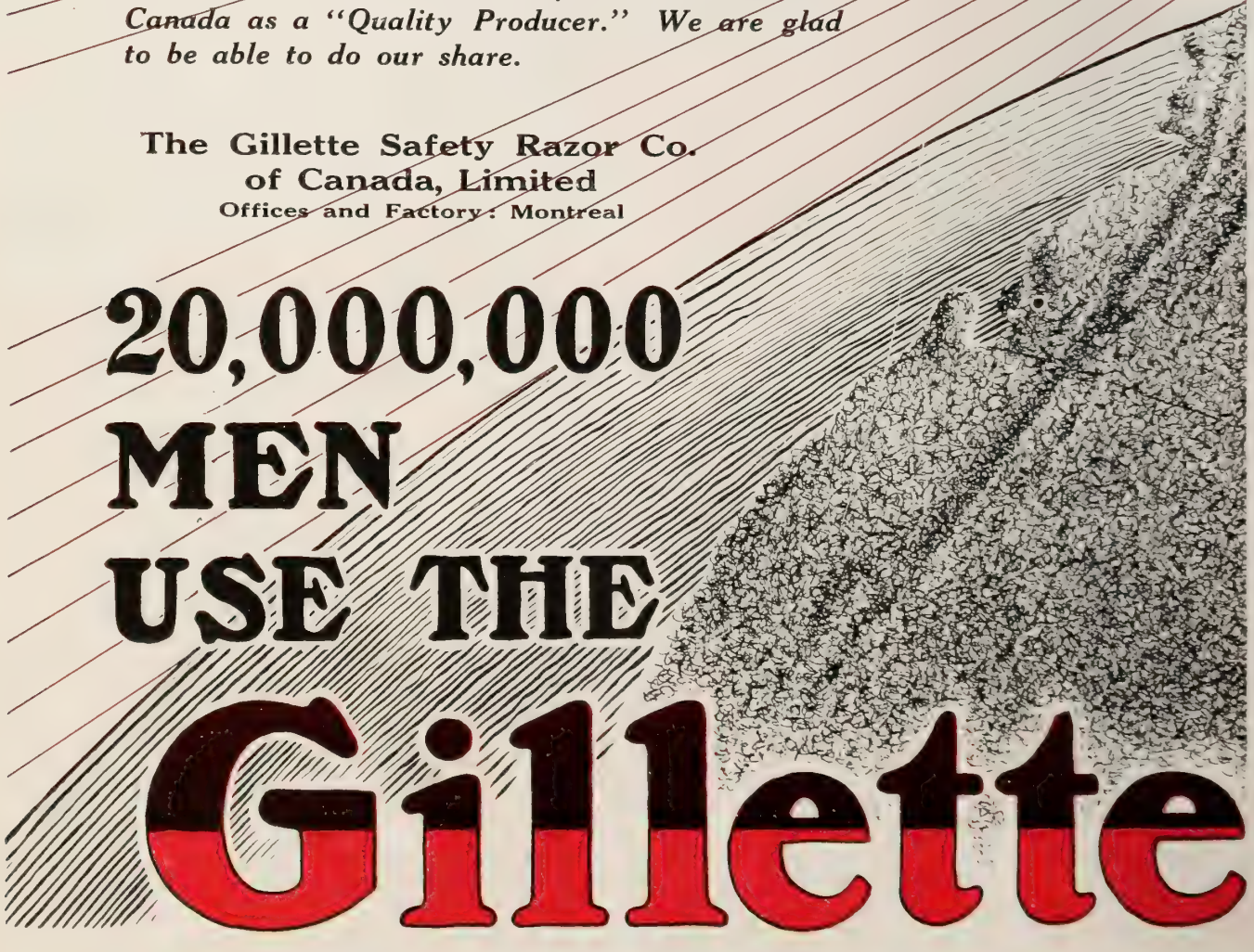
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The Gillette Safety Razor Co.
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Offices and Factory: Montreal



20,000,000 MEN USE THE Gillette



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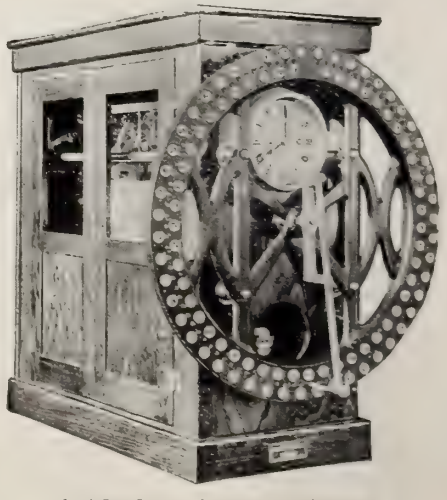
Here's a thought on your new Profit Tax

Economy is a real watchword now. Every item of cost must be given closest scrutiny. Take the large and important item of labor time, for instance. Unless you have a real modern recording system how do you know you are getting all you pay for?

INTERNATIONAL TIME RECORDERS

Not only ensure that you get an infallibly accurate record of the Time every employee spends at your plant but—every man is actually his own timekeeper. He makes his own time records. He knows they are printed, unchangeable, impartial and RIGHT. That's a big aid to plant morale.

Time records of late arrivals or early leavers are printed in RED. All green printings are normal time. Ensures a quick, easy make-up of payroll.



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OTTAWA, 188 Queen Street
TORONTO, 415½ Yonge Street
HAMILTON, 175 James Street N.
WALKERVILLE, ONT., 44 Lincoln Rd.
WINNIPEG, 227 McDermott Ave.
SASKATOON, 254, 3rd Avenue
CALGARY, 127, 6th Avenue
EDMONTON, 10118, 102nd Street
VANCOUVER, 110 Water Street

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Trying to find the Leak in his Profits

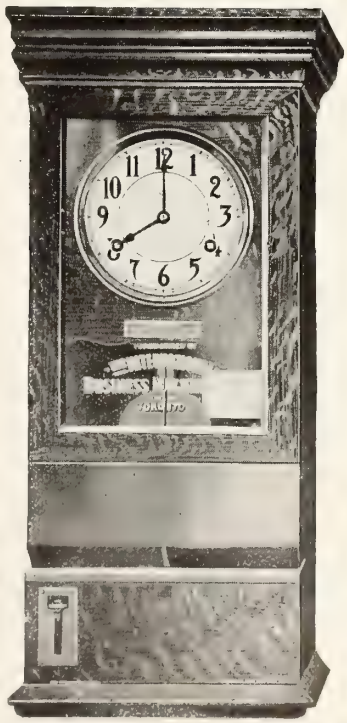
(*We could tell him where it is*)

Yes—we could probably put our finger on it first shot. Years of experience in time recording problems have shown us that there is one big leak-point and few employers grasp it. The difference between the total labor time you pay for and the productive labor time that is actually delivered by the work people. There is the danger spot.

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J. S. McKinnon... S. F. McKinnon & Co., Limited. Toronto, Ont.

FIRST VICE-PRESIDENT

W. S. Fisher — Enterprise Foundry Co., Limited. St. John, N.B.

SECOND VICE-PRESIDENT

J. R. Shaw..... Canada Furniture Mfrs., Ltd..... Woodstock, Ont.

TREASURER

Thomas Roden.... Roden Bros., Limited..... Toronto, Ont.

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J. S. McKinnon.....S. F. McKinnon & Co., Ltd.....Toronto.

First Vice-President

W. S. Fisher.....Emerson & Fisher, Ltd..... St. John, N.B.

Second Vice-President

J. R. Shaw..... Canada Furniture Mfrs., Ltd.....Woodstock, Ont.

Treasurer

Thos. Roden.....Roden Bros., Ltd.....Toronto.

President next preceding year

T. P. Howard..... The Phoenix Bridge & Iron Works, Ltd. ..... Montreal, Que.

(b) Chairmen of Standing Committees

Tariff Committee

Geo. W. Watts..... Canadian General Electric Co., Ltd. ..... Toronto.

Insurance Committee

Arthur Hewitt..... Consumers' Gas Co., of Toronto. Toronto.

Legislation Committee

C. J. McFarlane.... Canadian General Electric Co., Ltd. ..... Toronto.

Membership Committee

Paul E. Joubert.... Lamontagne, Ltd. ..... Montreal, Que.

Publishing Committee

J. F. M. Stewart.... Pointe Anne Quarries, Ltd..... Toronto.

Commercial Intelligence Committee

Frank Whitton.....The Steel Co. of Canada, Ltd..... Hamilton, Ont.

Transportation Committee

Burton S. Harris... Massey-Harris Co., Ltd..... Toronto.

Education Committee

B. W. Coghlin.....B. J. Coghlin Co., Ltd..... Montreal, Que.

Industrial Relations Committee

C. H. Carlisle..... Goodyear Tire & Rubber Co. of Canada, Ltd. ..... Toronto.

(c) Six Members elected from Council

(a) For term expiring September, 1920

Thos. Findley..... Massey-Harris Co., Ltd..... Toronto.
H. I. Thomas..... J. R. Booth ..... Ottawa, Ont.

(b) For term expiring September, 1921

Hon. E. J. Davis....Davis Leather Co., Ltd..... Newmarket, Ont.
W. H. Shapley.....103 Jameson Ave. ..... Toronto.

(c) For term expiring September, 1922

Angus McLean.....Bathurst Lumber Co., Ltd..... Bathurst, N.B.
C. Howard Smith...Howard Smith Paper Mills, Ltd.. Montreal, Que.

EXECUTIVE COUNCIL

(a) Appointive

Thos. Cantley .....Nova Scotia Steel & Coal Co., Ltd. N. Glasgow, N.S.
J. H. Sherrard ....Simmons Limited ..... Montreal, Que.
E. G. Henderson... Canadian Salt Co., Ltd. ..... Windsor, Ont.
Robert Hobson ....Steel Co. of Canada, Ltd. ..... Hamilton, Ont.
P. W. Ellis .....P. W. Ellis and Co., Ltd..... Toronto, Ont.
Cyrus A. Birge ....Steel Co. of Canada, Ltd. ..... Hamilton, Ont.
H. Cockshutt .....Cockshutt Plow Co., Ltd. ..... Brantford, Ont.
J. F. Ellis .....Barber-Ellis, Limited ..... Toronto, Ont.
Nathaniel Curry....Canadian Car & Foundry Co., Ltd. Montreal, Que.

(b) Elective

Maritime Provinces

Jno. D. Palmer ....Hartt Boot & Shoe Co., Ltd. ..Fredericton, N.B.
L. W. Simms .....T. S. Simms and Co., Ltd. ..... St. John, N.B.
C. S. Sutherland ..Amherst Boot and Shoe Co., Ltd.. Amherst, N.S.
A. D. Ganong .....Ganong Bros., Ltd. ..... St. Stephen, N.B.
F. A. Shand .....Windsor Furniture Co., Ltd. .... Windsor, N.S.
R. B. Stewart .....Maritime Bridge Co., Ltd..... N. Glasgow, N.S.

Montreal

F. G. Daniels.....Dominion Textile Co., Ltd..... Montreal.
J. Beaubien.....Frontenac Breweries, Ltd. ..... Montreal.
R. E. Jamieson....Dominion Rubber System, Ltd. .. Montreal.
R. H. McMaster... Steel Co. of Canada, Ltd..... Montreal.
Wm. Rutherford....Wm. Rutherford & Sons Co., Ltd. Montreal.
W. A. Desbarats...Desbarats Printing Co., Ltd..... Montreal.
Lt.-Col. W. J. Sadler Sadler & Haworth..... Montreal.
A. A. Bittues.....Gillette Safety Razor Co. of Canada, Ltd. ..... Montreal.
Paul F. Sise.....Northern Electric Co., Ltd..... Montreal.
F. H. Hopkins.....Dominion Wire Rope Co., Ltd.... Montreal.
W. R. Granger.... Glassford Bros., Ltd..... Montreal.
W. B. Ramsay.... A. Ramsay & Son Company..... Montreal.
Lawford Grant.....Eugene F. Phillips Elec. Works, Ltd. ..... Montreal.

Quebec City

Joseph Picard ....Rock City Tobacco Co., Ltd..... Quebec.
J. H. Fortier ....P. T. Legare and Co., Ltd. ..... Quebec.

Quebec Province

W. F. Vilas .....W. F. Vilas..... Cowansville.
J. C. Casavant ...Casavant Freres ..... St. Hyacinthe.
John Lowe, Jr.....Montreal Cottons, Ltd. ..... Valleyfield.
A. N. Normand....General Car & Machinery Works. Montmagny.
Geo. D. MacKinnon MacKinnon Steel Co., Ltd. ..... Sherbrooke.

Toronto

L. L. Anthes.....Anthes Foundry, Ltd..... Toronto.
George Brigden ..Brigdens, Limited ..... Toronto.
W. C. Coulter.... Booth-Coulter Copper & Brass Co., Ltd. ..... Toronto.
R. H. Easson.....The Otto Higel Co., Limited.... Toronto.
Thos. Findley ....Massey-Harris Co., Limited ..... Toronto.
E. J. Freyseng ...Freyseng Cork Co., Ltd. ..... Toronto.
Sam. Harris .....Harris Lithographing Co., Ltd.... Toronto.
C. Victor Harding Toronto Carpet Mfg. Co., Ltd. .. Toronto.
W. C. Laidlaw ....R. Laidlaw Lumber Co. ..... Toronto.
R. L. McIntyre ...McGregor & McIntyre, Ltd. .... Toronto.
T. F. Monypenny .Imperial Varnish & Color Co., Ltd. Toronto.
J. P. Murray .....Canadian Oil Producing and Refining Co., Ltd. ..... Toronto.
Jas. A. Riordan.. Standard Sanitary Mfg. Co., Ltd. Toronto.
J. Allan Ross ....Wm. Wrigley, Jr., Co., Ltd..... Toronto.
W. H. Shapley ...Sterling Action & Keys, Ltd..... Toronto.
W. H. Alderson ...Gutta Percha & Rubber, Ltd. ... Toronto.
J. F. Mackay.....Willys-Overland, Ltd..... Toronto.

Ontario

Lloyd Harris .....Brantford Glue Co., Ltd. ..... Brantford.
George H. Douglas Thornton & Douglas, Ltd. ..... Hamilton.
H. Bertram .....John Bertram & Sons Co., Ltd... Dundas.
W. R. Breyfogle ..De Laval Co., Ltd. ..... Peterboro.
George D. Forbes..R. Forbes Co., Ltd. ..... Hespeler.
W. M. Gartshore ..McClary Mfg. Co. ..... London.
F. S. Hodgins ....Williams, Greene & Rome Co., Ltd. Kitchener, Ont.
R. W. Leonard....Coniagas Reduction Co., Ltd..... St. Catharines.
G. M. McGregor...Ford Motor Co., of Canada, Ltd... Ford, Ont.
R. O. McCulloch...Goldie & McCulloch Co., Ltd..... Galt, Ont.
R. S. McLaughlin..McLaughlin Motor Car Co., Ltd... Oshawa, Ont.
Malcolm R. Meldrum Herbert Morris Crane & Hoist Co., Ltd. ..... Niagara Falls.
W. C. Phillips.....Frontenac Moulding & Glass Co., Ltd. ..... Kingston, Ont.
G. S. Rutherford...Solway Process Co. ..... Kitchener.
H. M. Snyder ...Snyder Bros. Upholstering Co., Ltd. ..... Waterloo, Ont.
T. J. Storey.....International Metal Works, Ltd... Brockville, Ont.
J. M. Taylor.....Taylor-Forbes Co., Ltd. ..... Guelph Ont.
Richard Thomson..Hawthorn Mills, Ltd. ..... Carleton Place.
C. H. Waterous....Waterous Engine Works Co., Ltd.. Brantford.
A. W. White .....The George White & Sons Co., Ltd. ..... London, Ont.
S. J. Williams....The Williams, Greene & Rome Co., Ltd. ..... Kitchener, Ont
H. H. Champ.....Steel Co. of Canada, Ltd. ..... Hamilton, Ont.
A. F. Hatch.....Canada Steel Goods Co., Ltd..... Hamilton, Ont.
H. J. Waddie.....Canadian Drawn Steel Co., Ltd... Hamilton, Ont.
G. C. Coppley.....Coppley, Noyes & Randall, Ltd... Hamilton, Ont.
W. H. Marsh.....Standard Underground Cable Co. of Canada, Ltd. ..... Hamilton, Ont.

Prairie Provinces

W. G. Fraser .....Beaver Soap Co., Ltd..... Winnipeg, Man.
T. R. Deacon .....Manitoba Bridge and Iron Works, Ltd. ..... Winnipeg, Man.
J. O. Thorn .....Metallic Roofing Co. of Canada, Ltd. ..... Winnipeg, Man.
E. Parnell .....Spiers, Parnell Baking Co. ..... Winnipeg, Man.
W. J. Fulton .....Dominion Radiator Co., Ltd. .... Winnipeg, Man.
W. J. Bulman .....Bulman Bros., Ltd. ..... Winnipeg, Man.
W. R. Ingram .....Swift Canadian Co., Ltd. ..... Winnipeg, Man.
F. W. Drewry .....Edward L. Drewry, Ltd. ..... Winnipeg, Man.
H. Shaw .....Northwest Biscuit Co., Ltd..... Edmonton, Alta.
A. Milhalko. .....Saskatoon Pure Milk Co., Ltd. .. Saskatoon, Sask.
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J. J. Coughlan	J. Coughlan & Sons	Vancouver, B.C.
L. W. Hamber	B.C. Mills Timber & Trading Co., Ltd.	Vancouver, B.C.

(c) **Ex-Officio**

S. R. Parsons	British America Oil Co. Ltd.	Toronto.
W. J. Bulman	Bulman Bros., Ltd.	Winnipeg
T. P. Howard	Phoenix Bridge & Iron Works, Ltd.	Montreal

TARIFF COMMITTEE

G. W. Watts (Chairman)	Canadian General Electric Co., Ltd.	Toronto, Ont.
Hon. E. J. Davis	Davis Leather Co., Ltd.	Newmarket, Ont.
C. H. Smith	Howard Smith Paper Mills, Ltd.	Montreal, Que.
H. H. Champ	Steel Co. of Canada, Ltd.	Hamilton, Ont
J. B. Thomson	Jas. Thomson & Sons, Ltd.	Vancouver, B.C
E. D. Smith	E. D. Smith & Son, Ltd.	Winona, Ont.

INSURANCE COMMITTEE

Arthur Hewitt (Chairman)	Consumers' Gas Co., Ltd.	Aurora, Ont.
H. W. Fleury	J. Fleury's Sons	Toronto, Ont.
W. H. Shapley	Sterling Actions & Keys, Ltd.	Hamilton, Ont.
R. T. Kelly	John Bull Manufacturing Co.	Toronto, Ont.
N. Yarrow	Yarrow's, Limited	Victoria, B.C.
Angus McLean	Bathurst Lumber Co., Ltd.	Bathurst N.B.

LEGISLATION COMMITTEE

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J. G. Hossack	Massey-Harris Co., Ltd.	Toronto, Ont.
G. C. Coppley	Coppley, Noyes & Randall, Ltd.	Hamilton, Ont.
W. A. MacKinnon	McKinnon Industries, Ltd.	St.Catharines,Ont.
T. R. Deacon	Manitoba Bridge & Iron Works, Ltd.	Winnipeg, Man.
A. O. Dawson	Canadian Cottons, Ltd.	Montreal, Que.

MEMBERSHIP COMMITTEE

P. E. Joubert (Chairman)	Lamontagne, Limited	Montreal, Que.
G. H. Douglas	Thornton & Douglas, Ltd.	Hamilton, Ont.
G. C. Robson	W. H. Clark & Co., Ltd.	Edmonton, Alta.
W. C. Laidlaw	R. Laidlaw Lumber Co.	Toronto, Ont.
G. A. Dobbie	Newlands & Co., Ltd.	Galt, Ont.
H. A. Telfer	Telfer Bros., Ltd.	Toronto, Ont.

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J. M. Taylor	Taylor-Forbes Co., Ltd.	Guelph, Ont
J. F. MacKay	Willys Overland, Ltd.	Toronto, Ont.
F. P. Megan	Wm. Davies Co., Ltd.	Toronto, Ont.
R. H. MacKay	MacKay & Fraser, Ltd.	New Glasgow, N.S.
A. B. Stovel	Stovel Co., Ltd.	Winnipeg, Man.

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Frank H. Whitton (Chairman)	Steel Co. of Canada, Ltd.	Hamilton, Ont.
George Henderson	Brandram Henderson, Ltd.	Montreal, Que.
Thos. Cantley	N.S. Steel & Coal Co., Ltd.	New Glasgow, N.S.
C. G. McGhie	Welland Vale Mfg. Co., Ltd.	St.Catharines,Ont.
I. H. Weldon	Provincial Paper Mills, Ltd.	Toronto, Ont.
E. H. Gurney	Gurney Foundry Co., Ltd.	Toronto, Ont.

TRANSPORTATION COMMITTEE

Burton S. Harris (Chairman)	Massey-Harris Co., Ltd.	Toronto, Ont.
R. P. D. Graham	Goodyear Tire & Rubber Co. of Can., Ltd.	Toronto, Ont.
W. R. Breyfogle	DeLaval Co., Ltd.	Peterboro, Ont.
W. R. Dunn	International Harvester Co. of Canada, Ltd.	Hamilton, Ont.
W. R. Ingram	Swift Canadian Co., Ltd.	Winnipeg, Man.
H. I. Thomas	J. R. Booth	Ottawa, Ont.

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E. Tarte	La Patrie Publishing Co., Ltd.	Montreal, Que.
Joseph Picard	Rock City Tobacco Co., Ltd.	Quebec, Que.
W. J. Bulman	Bulman Bros., Ltd.	Winnipeg, Man.
H. S. Robertson	Geo. McLagan Furniture Co.	Stratford, Ont.
George Brigden	Brigden's, Limited	Toronto, Ont.

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C. H. Carlisle (Chairman)	Goodyear Tire & Rubber Co., Ltd.	Toronto, Ont.
M. R. Meldrum	The Herbert Morris Crane & Hoist Co., Ltd.	Niagara Falls, Ont.
S. J. Williams	Williams, Greene & Rome Co., Ltd.	Kitchener, Ont.
J. D. Palmer	Hartt Boot & Shoe Co., Ltd.	Fredericton, N.B.
J. R. Duncan	Vulcan Iron Works, Ltd.	Vancouver, B.C.
F. P. Jones	Canada Cement Co., Ltd.	Montreal, Que.

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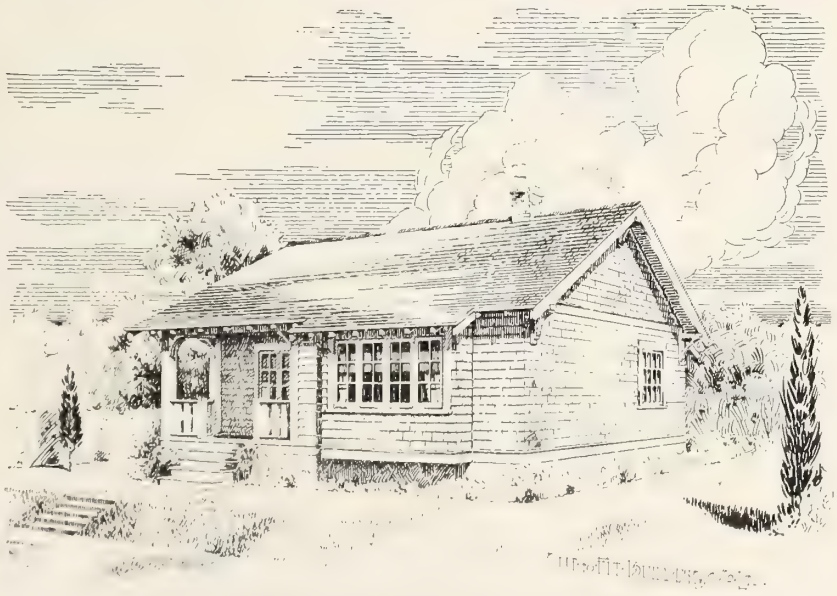
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The Problem of Technical Education

(*Continued from page 254.*)

the provincial governments have adopted regulations which provide for financial assistance to local school boards to the extent of 50 per cent. of their expenditures. This means that for every $100 spent by a local board, $50 is paid by the province, and of the $50 which is paid by the province $25 is supplied from the Federal grant. It, therefore, follows that the maximum amount of money now in sight for this work is $4,000,000 per year. For a people of 9,000,000, this appears to be quite a respectable sum, but when we consider that we now spend nearly $3,000,000 per year on our secondary schools and universities and fully develop only 1 per cent. of our youth, it is obvious that $4,000,000 is quite inadequate even for partial solution suggested. If the amount appropriated by the Federal Government were $3,000,000 per annum, as recommended by the Royal Commission appointed in 1910 to study and report on this subject, it would still be inadequate. As the problem is clearly one of the greatest national importance, it must be dealt with accordingly, and, on account of the great expense involved, the provinces must assist their school boards more liberally, and the Federal Government should in turn give more help to the provinces.

The Supply of Instructors

Assuming that accommodation and equipment have been provided, the next phase of the problem is the supply of instructors. To obtain an adequate supply of properly qualified teachers is perhaps the most difficult part of the whole problem. A candidate for vocational teaching should have successful experience in his chosen field if he, or she, is to command the respect and hold the interest of the pupils in their work. In addition they must know how to teach—how to systematically impart their own ideas, to awaken the interest and enthusiasm of the pupil, to the end that he will regard his vocation not merely as a channel through which he may make a livelihood, but also as a fountain from which he may draw inspiration and pleasure. It follows then that the supply of teachers must be drawn from those who have been engaged in their several vocations for a time sufficiently long to demonstrate their ability. Minor defects in elementary education will have to be remedied as an incidental part of the training in methods of teaching. It will be necessary to train a large number of teachers because of the great variety of industrial employments. To keep teachers in touch with the ever changing methods of modern industry provision should be made for their periodical re-entry into the productive field. In connection with this particular part of the work, the sympathy and active co-operation of the employer is absolutely essential if systematic vocational training is to be developed to any degree of perfection.

For the Training of Teachers

To provide facilities for the training of teachers a special type of institution is required. As this great extension of our educational system into the field of vocational training will present the greatest possible opportunity for the development of a national spirit which will animate our efforts in establishing national aims and ideals, it is of the utmost importance that each province should have the same system of teacher-training. In this connection I am pleased to be able to state that practically all of our provincial departments of education have expressed a desire and a readiness to co-operate in working out a uniform system. Action toward this end will be taken within a few months, and I am very hopeful that before the end of the year it will be possible to

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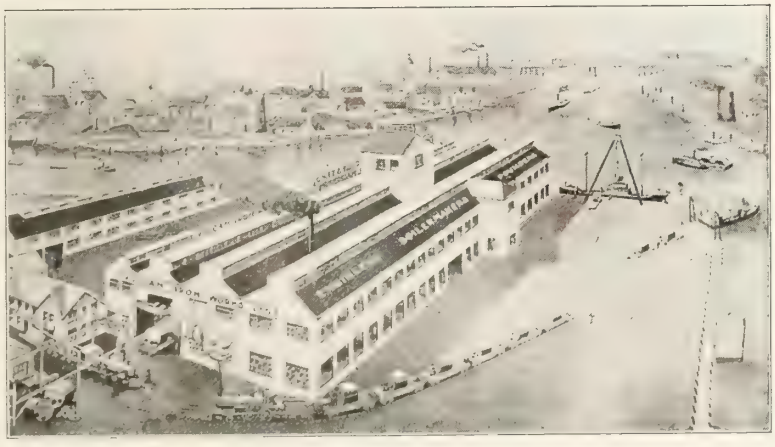
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make the announcement that Canada has adopted a national system of vocational teacher training—the first of its kind in the world.

Before disposing of the question of teachers, attention must be drawn to the question of remuneration. Since none but those who have been successful in productive employment will be of service as teachers, it follows that the salaries fixed for vocational teachers must be greater than the maximum remuneration obtainable in productive work. Salaries of vocational teachers will therefore be considerably higher than salaries of teachers doing non-vocational work.

Securing Attendance at Schools

The next phase of the problem is that of securing attendance at vocational schools. It has already been noted that a large number of children drop out of our elementary schools between the ages of 11 and 14, and that many who attend up to 14 are below the corresponding grade. These conditions are due to several causes; first, the teacher does not possess the ability to awaken and develop the interest of the pupils in school work; second, the pupils' mentality may not be such as can be developed by ordinary school methods; third, some parents keep their children at home to work. These conditions are more marked in the vocational school where attendance is entirely voluntary. From experience already gained in manual and vocational training, we know that the great majority of children can be interested in vocational work. If they are sufficiently interested they will attend school without compulsion. But if the parents put them to work, the only alternative is a compulsory attendance law, The Province of Ontario has already taken a step in this direction. A law has been passed by the Legislature of the Province which provides for attendance of all adolescents between the ages of 14 and 18—full-time attendance if not employed, and approximately half-time if engaged in some employment. This law is not yet in force, but may be made effective at any time by Order-in-Council. Some of the States to the south have a law of this kind partially in force at the present time.

The last phase of the problem is that of system to be followed in the actual work of developing the individual pupil. The first essential is that the vocational system must fit on to the present educational system. Deficiencies in elementary training must be made up. This means that there must be preparatory or supplementary classes for those who are below the normal grade at 14 years. Second, there should be equality of opportunity, which means that each individual should have opportunity for development in accordance with taste and native ability. Third, there should be rigid discipline to develop a sense of duty and responsibility, as well as good habits. Fourth, there must be promotion of goodwill, with desire and ability to co-operate with others. This can be done through the medium of various organizations for outdoor games and work, as well as through the objective side of the indoor work. Finally, there must be effective vocational training. The cry of the employer in every corner of the country is for skilled workers. It is generally recognized that the apprenticeship system is no longer effective. Some other system must therefore be devised to take its place. It has been decided that this is to be one of the functions of the technical school. How is this to be done? In dealing with this phase of the problem we have to be guided by the fundamental principle that manipulative and creative skill can be developed only by repeated experiences. It is not feasible, however, to provide facilities in the technical school

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S.S. "War Camp," one of the vessels built for the British Government. Photo shows the vessel just prior to leaving British Columbia on her maiden voyage to Great Britain Dimensions:—Length 427 ft., beam 54 ft., depth 29 ft. 9 ins. Speed 11½ knots

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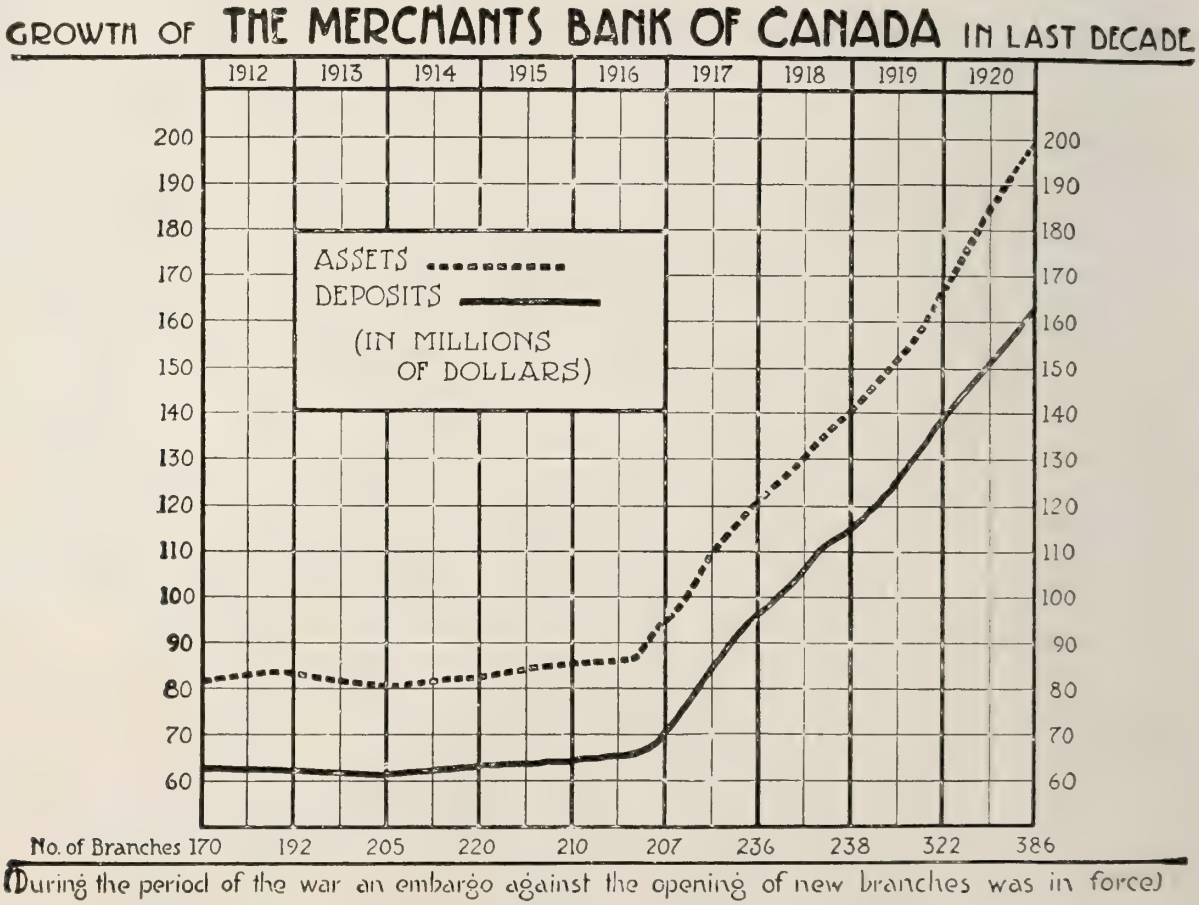
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to give to the individual the required number of experiences except under such conditions as will give a product having commercial value. This means that either the vocational school must be organized and conducted on an industrial basis with resultant commercial output, or the pupil in training must get the required mass of practical experience through employment in his particular vocation. For various reasons the first alternative can be adopted only under exceptional circumstances. A vocational school with a number of departments organized to turn out commercial products is not feasible for the reason that it would be the target for the wrath of both the manufacturer and the labor unions. Apart from this the organization would always be top heavy and consequently too expensive. If the school is to meet the needs of only one specific industry, this alternative may be adopted with a good prospect of success, but it must be so closely associated with the industry that it may be regarded as a special department. As examples of this we have the private schools which have been established by some of the large manufacturing establishments in the United States. In these cases there is a perfect system of co-operation between the school and the productive departments of the establishment.

Experience Through Employment

While it is not feasible under ordinary conditions to provide faciities in the technical school to give the pupils the amount of experience necessary to develop the required speed and manipulative skill, it is essential that sufficient practical experience should be given to demonstrate and clearly fix in the pupil's mind the principles and methods on which the vocation is based. Under these conditions the mass of experience must be supplied through productive employment. Such a system, which is the alternative of the two systems previously outlined, represents the best and most economical solution of this phase of the problem. Known as the part-time or co-operative system of vocational training, it has been adopted by a number of States to the south and by some European countries. As an organized system it was first adopted on this continent by the University of Cincinnati in the training of its engineering students. Here the student alternates weekly between shop and college. These co-operative courses extend over a period of five years of eleven months each. Corresponding courses in other institutions extend over four years of seven to eight months each. The State of Massachusetts has adopted this scheme for vocational training, and has extended it in some cities even to the elementary schools. The engineering college of Harvard University has recently taken a decided step forward in this direction. The scheme adopted by this institution goes into effect at the beginning of next session. It involves not only an interchange of students between class-room and commercial employment, but also a systematic co-ordination of the work outside and the instruction inside, including outside supervision, and evening lectures while the student is at work. The extension of this system toward the complete control of the student while employed is new. If the attendant difficulties can be overcome it should materially improve the efficiency of the system.



The policy of the Merchants Bank has not been that of amalgamating with other Banks, nor of acquiring business in foreign countries. The gains, therefore, as shown by the above Chart represent the actual growth of the Bank's business in Canada during the period covered.

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Stressing Export Trade

Speakers at Annual Meeting Devoted Much Time to Urging Its Development

POSSIBILITIES for the development of trans-Pacific trade were strongly emphasized at the Vancouver meeting. Trade Commissioner Bryan, who came specially from Japan to address the convention, and Captain Robert Dollar, who spoke from the ripe experience of many years, painted glowing pictures of what is in store for those who will but enter the teeming markets of the Orient. British Columbia speakers, like Premier Oliver, Mr. J. B. Thomson, Mr. J. O. Cameron and Mr. McGeer, all linked up their descriptions of the great resources and industrial potentialities of the province, with the bearing which these had on export trade. Throughout the whole convention, the subject bulked largely, and members who attended from the East, returned home with a new vision and a greater enthusiasm for the work of developing the country.

There has been some criticism from time to time of the apathy of Canadian manufacturers towards export trade. It is perhaps time that, confronted with a voracious home market, there has been an inclination to forget about foreign markets. This condition, however, will presently right itself. When once home demands are satisfied, there will be a natural movement towards other markets, and in due course it will be found that Canadian manufacturers will be seeking their full share of world trade. The formation of the British Empire Steel Corporation, the rapid expansion of the pulp and paper industry, the inception of large scale chemical production and other developments of the day, are all planned on the broad basis of export business.

In the meantime it has been good work to tell eastern manufacturers all about trade prospects in the Orient, and it is to be hoped that members of the Association, who did not have the pleasure and privilege of hearing the addresses delivered at Vancouver, will read them as they appear in this issue of INDUSTRIAL CANADA. The one omission is Mr. Bryan's address, which was found too long for inclusion in this number. It will be published in the August issue.

New Steamship Service

Canadian Government Merchant Marine Will Inaugurate Line to India, Etc.

The Canadian Government Merchant Marine announce that they have decided to inaugurate a steamship service from Montreal to India, Java, Singapore and Ceylon. The first vessel will leave Montreal about the end of August. Full particulars as to ocean rates, space, etc., can be obtained from Mr. D. O. Wood, Traffic Manager, Canadian Government Merchant Marine, Limited, 704 Royal Bank Building, Toronto, or agents.

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REGINA
askatchewan
anada

1920

Regina serves 2,255 miles of Railway and 250 towns and villages. Population of District 466,666.

In districts Nos. 1, 2, 4, and 5 are two-thirds of the population of the Province, and over two-thirds of the grain of the Province is raised in these four districts. Of the 1,870,123 head of stock in the Province, three-quarters of the total are raised in the above four districts.

The figures on this map designate the districts.



REGINA

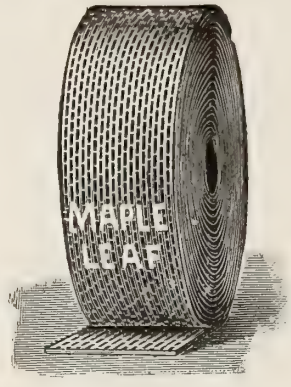
Saskatchewan's capital, is one of the few cities visited by the members of the Canadian Manufacturers' Association on their trip west to Vancouver, where the annual convention of the Association was held. Many of the manufacturers expressed great surprise at the growth and development that has taken place in this city during the last few years and predicted for it a great future, claiming that its geographical situation was of exceptional advantage as a distributing centre. The following is Regina's building programme, as of May 31st, for 1920:

Regina Trading Co.	$200,000	Sellers' departmental store extension	$50,000	Winnipeg Ceiling & Roofing Co.	$40,000
Fairbanks-Morse Co.	200,000	Car barn extension	30,000	Exhibition Grounds extensions	60,000
Provincial War Museum	500,000	Hospital extension	85,000	Disposal Works extensions	30,000
Wood, Vallance & Co.	250,000	Bapco warehouse	40,000	P. Burns & Co.	100,000
Public Schools (2)	250,000	Nay and James Block	20,000	Swift Co.	250,000
Collegiate extension	150,000	14th Avenue Methodist Church	10,000	Allan Wilkinson Stores	25,000
Sask. Co-operative Creamery	150,000	Carmichael Presbyterian Church	25,000	Leader Publishing Co.	20,000
Advance Rumely Co.	150,000	Wascana Boat Club	10,000	Miner Rubber Co.	50,000
Ford Motors, Limited	100,000	Red Cross Lodge	6,000	Masterson's Garage	35,000
Merchants Bank	100,000	Harding Garage	30,000	Bell & Ross Warehouse	35,000
350 residences, an average of $3,000 each	1,050,000	Wheelan's Garage	18,000		

Not a few of the above buildings are well under way of completion.

For further information apply to L. T. McDONALD, Board of Trade, Regina or Commissioner L. A. THORNTON, City Hall, Regina

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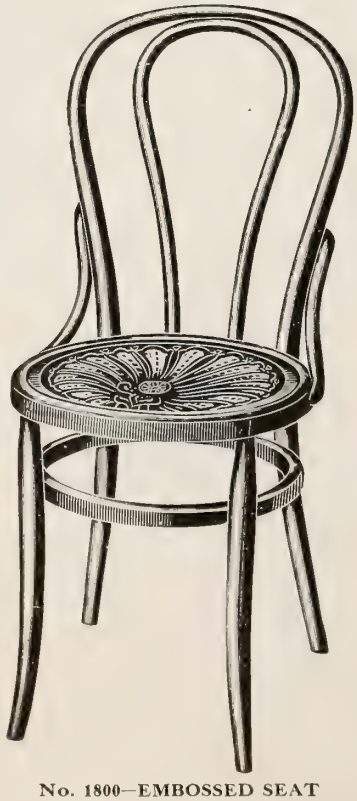
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OFFICE AND FINANCE

The Perpetual Inventory as a Turnover Record

By A. M. IRWIN

IT is generally conceded that an accurate record of labor turnover and its attendant costs is essential to the successful conduct of a manufacturing or other business enterprise, no matter how large or small that business may be; and it stands to reason that if the Employment Manager, the Factory Superintendent and the General Manager can see daily the changes that are taking place in the personnel, rising costs in connection with the labor situation may be nipped in the bud.

The medical man has to know the symptoms before he can effect a cure, and when he has ascertained the symptoms it is easy for him to find the cause and remove it. If the Employment Manager can find the symptoms of the expensive industrial disease known as labor turnover and can have those symptoms charted daily, he also can find the causes and can go to work in an intelligent manner to remove them before their ill-effects gain too great a hold.

The perpetual inventory is so well-known and so widely in use that very little explanation of its adaptation to employment records is necessary. It starts the month with a record of stock on hand and is provided with columns which list receipts and issues, with a daily balance column which tells at a glance what stock is on hand. There is nothing simpler than to adapt this system to the keeping of up-to-the-minute personnel records.

Instead of recording stock on hand and the various fluctuations thereof, a card is designed to suit the conditions of the factory in which it is to be used and is treated in exactly the same manner as a stores record, with the exception that instead of stock, the movements recorded thereon are those of the working force. Record may be kept of the factory or warehouse staff by sexes, wage-rates, jobs or any other classification which may be necessary, and much valuable data may be compiled as a result of a careful study of the effect of surroundings, outside and inside influences, labor disturbances, living costs and seasons, and their relations to staff movements. Monthly and yearly abstracts from the perpetual record will prove themselves very valuable statements and the cards when filed away will be of great worth as a basis for comparison of the turnover in previous periods.

The turnover problem is one of the deadliest foes to efficiency in output. It is well-known that a sudden or even a gradual labor movement above a certain percentage is like the climbing of the mercury in the

A - Appointment
T - Termination
Tr. To Tfd to Dept.
Tr. F. " from "

DAILY TOTAL RECORD

	MALE					FEMALE				TOTAL	MALE			
DATE	A.	TR TO	T	TR F.	TOTAL	A	TR TO	T	TR F		DATE	A	TR. TO	T
1					M 350 F 350					800	16			
2	2		2		M 350 F 359			1		799	17			
3	1	3	2	1	M 351 F 350	5	2	4	6	801	18			
4			10		M 351 F 349					790	19			
5											20			
6											21			
7											22			
8											23			
9											24			
10											25			
11											26			
12											27			

FIG. I.
Portion of 8x5-inch Record or Inventory Card

EMPLOYMENT DEPARTMENT
STATISTICIAN'S DAILY RECORD

DEPT.	NAME	CLOCK No	TOOLS	LOCKER KEY	REMARKS	D. OR P.W.	RATE	POSTED ON CARDS	PAID
Assembly	Jones John	368	✓	✓	Quitting - Dissatisfied	P	.15	✓	✓
Painting	Wilson H	273	✓	✓	Discharged - Insolent	P	05	✓	✓
Stock	Brown Mary	160	–	✓	Quitting - to be married	D	1.75	✓	✓
Packing	Temple J.	171	issued	issued	T. from Assembly	D	3.90	✓	
Engine Room	Thompson W	23	–	issued	Boy (Oiler)	D	2.00	✓	
Toolmaking	Thomas J K	450	–	–	T. to Packing	D	3.90	✓	
Stock	Smith Wm	150	–	–	T. to Shipping	Wkly	17.50	✓	

NOTE: When tools and keys have been handed in and payment made, enter ✓ in proper column.

Place ✓ in posted column when all entries have been posted

FIG. II
Specimen make-up of Record Sheet

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PEG-
WOOD

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clinical thermometer, a symptom of trouble, and the factory manager or personnel officer who can feel the pulse of his force the very day that such movement takes place, who knows that to-day more people have quit than yesterday, than two months ago, than on this date last year, instead of having to wait for a weekly or monthly report, has the best chance of getting at and removing the infection before it can spread. And the method is simple.

Have printed or even mimeographed (the form used in the illustration is only a mimeo.) a card as per figure 1, with whatever divisions or subdivisions are suitable to your business, arrange for its correct up-keep by the statistician or records clerk and have it circulated daily to the officers to whom it will be of value.

The code initials have the following interpretation:

A.—Appointment. TR. TO.—Transferred to Department.

T.—Termination. TR. FROM—Transferred from Department.

And all the equipment necessary in the Employment Department is:

1. A desk blotter or daily record for use of the statistician on the same principle as the teller's blotter used in the banks. (Fig. II.).

2. Set of cards under the necessary classifications.

The routine is as follows: When an engagement, clearing or departmental transfer is made, the fact is noted on the blotter (see Fig. II), and at the end of the day the various entries are posted to cards under their correct classification; with the result that each morning reference to the grand total card will show not only the movements of the day before, but also the strength of the force; and reference to department cards will show each department head his own strength. The same card may be used as a grand total record in which case the codes TR. TO and TR. FROM are not used.

The foregoing shows that by different arrangements of the perpetual record system, statistics may be compiled of various phases of the turnover problems; and daily records, which in a large plant are invaluable, of the different classes of labor may be seen at a glance. By simple alterations in the make-up of the card, the record can be made to give a graphic presentation of labor costs, daily, weekly or monthly.

When used in conjunction with a diary which records such seemingly everyday things as weather, ball games, etc., and the more vitally interesting street car delays, street car strikes and national holidays, a card on the same principle showing absence, loss of time through tardiness, etc., will afford some very valuable data.

For instance, the writer has found in his small experience, that in an office staff of some 600 persons, the percentage of absence was increased by about one-half on the Saturday mornings preceding week-ends in which the Monday was a holiday; lateness was increased by about one-third on rainy days; and the day preceding pay-day and pay-day itself were always signallized by a drop in the absentee record from an average of 5.5 per cent. to an average of 5 per cent.

Barometers are as necessary in the business man's pilot house as they are to the sea captain, and only by their intelligent use and the charting of their records can we expect to accurately prepare for squalls.

Brompton Pulp

Company Adopts Plan of Other Paper Companies and Issues New Stock

Announcement was made on June 17 that shareholders of the Brompton Pulp & Paper Co. would be asked to authorize a change in the capitalization, whereby the present 70,000 shares of a par value of $100 would be superseded by 210,000

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UNIFORMITY & PURITY
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Lake of the Woods Milling Co. Limited

MILLERS OF CANADIAN HARD WESTERN WHEAT FLOUR FOR DOMESTIC AND FOREIGN MARKETS

Makers of

Five Roses Flour

Head Office: Montreal Western Office: Winnipeg
Mills at Keewatin, Portage la Prairie, Medicine Hat

Daily Capacity: 13,700 Barrels

President, FRANK S. MEIGHEN Vice-President, WM. W. HUTCHISON

Directors

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R. M. BALLANTYNE TANCREDE BIENVENU JOHN W. CARSON
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LIMITED

Lithographers Embossers
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Manufacturers of Envelopes
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Corrugated Boxes
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THE STANDARD PAPER BOX CO.
Limited
8 ST. PAUL STREET EAST
Factories: 113-115-117-119 Queen Street
1-3 Commissioner Street
8 St. Paul Street East
Montreal

shares of no par value, holders of the present stock to receive two shares of the new securities for each one of the old held. As there are 70,000 shares of Brompton common stock now outstanding, the capital re-arrangement will entail the issuing of 140,000 shares of the proposed authorization of 210,000 shares, leaving 70,000 to be held in the treasury to provide for future financing. The new shares will be placed on a $6 per share basis, which is equivalent to 12 per cent. on the present securities.

Riordon Company

Financing of New Company Involved Offering of $8,500,000 Eight Per Cent. Stock

After disposing privately of a large portion of the issue of $8,500,000 eight per cent. cumulative first preferred shares of the Riordon Company, Limited, the Royal Securities Corporation offered the unsold balance, on June 18, at par, with a 20 per cent. bonus of common stock. Terms called for 25 per cent. on application; 25 per cent. on July 15; 25 per cent. on August 16, and 25 per cent. on September 15. Adjustments on common stock will be made at $50 per share.

Willard's Chocolates

Company Make an Issue of $600,000 Eight Per Cent. Cumulative Preferred Stock

An issue of $600,000 eight per cent. sinking fund cumulative preferred stock of Willard's Chocolates, Limited, has been on offer recently by the Dominion Securities Corporation, at par with a bonus of 25 per cent. in common stock. The Company's capital consists of $1,250,000 preferred stock, of which $600,000 will be issued, and $2,000,000 common stock, of which $1,500,000 will be issued. The company have just completed their new ice cream factory on Dupont Street, Toronto.

Tooke Bros., Limited

Substantial Gain in Profits Made for the Year Ended May 31 Last

Net profits of Tooke Bros., Limited, for the year ended May 21, after provision was made for war taxes, amounted to $238,230 an increase of $85,920 over 1919 and $102,472 over 1918. After providing $15,000 for depreciation and taking care of all arrears of preferred dividends, there remained a balance of $119,805 applicable to the common stock, or approximately 18.5 per cent. The balance sheet shows an excess of current assets over current liabilities of $727,377, compared with $388,296 at the end of the previous fiscal year.

Dominion Engineering Works

An Offering of Eight Per Cent. Cumulative Redeemable Preference Stock being Made

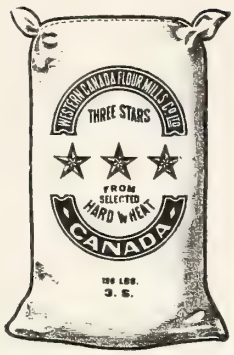
An offering of $1,400 000 eight per cent. cumulative redeemable preference stock of Dominion Engineering Works, Limited, is being made by Hanson Bros., Aldred & Co., Limited, and McDougall & Cowans. .The sale price is $98 per share, carrying a bonus of 25 per cent. of common stock. This is the company formed by Dominion Bridge Co. interests to undertake the manufacture of hydro power and pulp and paper manufacturing machinery, taking over the plant of the St. Lawrence Bridge Co. for the purpose. The directors include G. H. Duggan, president; A. J. Brown, K.C., vice-president; W. F. Angus, George Chahoon, jr., Sir Herbert S. Holt, Phelps Johnson, Julian C. Smith, J. M. McIntyre, Howard Murray, H. Birchard Taylor and F. L. Wanklyn.



PURITY FLOUR



HURON FLOUR



THREE STARS FLOUR



BATTLE FLOUR

Brands of Quality

are the brands of a Purity Mill. Purity standards require the best selections of Western Canada Hard Spring Wheat, and careful milling by long experienced millers makes them the standard of quality for the world's flour markets

Our years of experience in the export markets of the world permit us to offer prompt and efficient service with full confidence in our ability to deliver it

A
PURITY MILL
AT
ST. BONIFACE
MANITOBA
Daily Capacity
5,000 Bbls.



Combined
Daily Capacity
10,000 Bbls. of
Flour
and
1,000 Bbls. of
Rolled Oats

Other Mills at
Winnipeg, Goderich, Calgary,
Brandon, Edmonton and Victoria

Western Canada Flour Mills Co., Limited -- TORONTO CANADA

CABLE ADDRESS -- LAKURON

Canada's Industrial Expansion

A Record of Progress

Piano Company Expands

Stanley Piano Company, Toronto, Take Over Building Purchased by Them in Pre-war Days

The Stanley Piano Co., Toronto, are now occupying their new factory premises at 349 Carlaw Avenue. These were purchased in pre-war days, but have been occupied under lease in the meantime by J. M. Loose & Sons, piano action-makers. The building stands on a lot 150x400 feet and is of reinforced concrete construction, containing 20,000 square feet of floor space, with power and kiln. The building will give the company much needed space for expansion, which their business has demanded.

New Chocolate Company

Dominion Chocolate Co., Limited, Formed to Take Over the Hooton Chocolate Co., Limited

The Dominion Chocolate Co., Limited, have been incorporated with a view of taking over the business of the Hooton Chocolate Co., Limited, Toronto, a company established some years ago by the Hooton Cocoa Co., of Newark, N.J., with a plant at 60-76 Duchess Street, Toronto. Some new financing has been undertaken, including the offering for public subscription of $400,000 eight per cent. cumulative preferred shares. This has been necessary in order to get the control of the company into the hands of Canadians. It is stated that an extension of the business in the very near future seems imminent and it is the intention of the management to increase the number of lines manufactured.

Increasing Capacity

Pulp Manufacturing Plant of the Kipawa Company, Limited, to Make 300 Tons Per Day

In connection with the recent visit to the plant of the Kipawa Co., Limited, of a party of American financiers, the *Pulp & Paper Magazine* gives the following information about this industry:

"The Kipawa Company is a subsidiary of the Riordon Pulp and Paper Company and was formed in 1913. It is situated in the Temiskaming District, in the Province of Quebec. Riordon engineers considered it the logical spot to locate sulphite mills. The property now owned by the company was purchased in 1918, in which year the construction of the first unit for an output of 100 tons per day was begun. Production started at the end of 1919. The company owns more than 1,200 square miles of timber limits, and 20,000 H.P. is available the year round. If conservation work is undertaken at the headwaters, this amount could be increased to 35,000 H.P. The company has power leases from the Quebec Government for 75 years. At present the company only develops 7,200 H.P., which is considered sufficient to take care of a production of 300 tons per day.

"The development of the plant and project was planned and carried out under the personal direction of Mr. C. B. Thorne, technical director of the Riordon Pulp & Paper Company. The general design of the mill is the result of years of experience in the manufacture of sulphite pulp and embodies many unique features. The aim of the engineers was to build not only the best mill, but one in which labor costs could be reduced to a minimum. The engineers also kept in mind a mill with a capacity of 500 tons a day. As the plant is now situated, additional units of 100 tons each can be added at any time. A second 100-ton unit is already under construction, and it is expected that, within a few months, the plant will be turning out 300 tons per day. With the completion of the new unit, the cost of the plant will be in the neighborhood of $15,000,000.

"Production was commenced in December, 1919, and a production of 100 tons of bleached sulphite pulp per day was promised, and the party learned with satisfaction that the production for the month of May has been 142 tons per day, and, when the financing to be done in the very near future is completed, and the second unit is completed, a great part of it being already finished, the production estimated for September next will be 175 tons of pulp per day, and early in 1921 the production will reach 300 tons per day."

New Silk Goods Industry

Houlding & Coleman, Limited, are Starting Plant for Manufacture of Neckwear, Etc.

Houlding & Coleman, Limited, is the name of a new incorporation in Toronto, who are establishing an industry for the manufacture of silk knitted dress fabrics, silk knitted scarfs and mufflers and silk knitted neckwear. They do not anticipate erecting a building, but have leased premises at 419 King Street West, where they are locating a small plant. It will comprise the latest machinery for the manufacture of silk knitted gools. Mr. T. R. Houlding is president of the company.

New Canning Factory

Pillsworth & Daly, of Cobourg, are Locating New Canning Industry at Port Hope

Pillsworth & Daly, contractors, Cobourg, are erecting a plant in Port Hope for canning purposes. The factory proper will be a metal-clad building, 30x70 feet, on concrete foundation, and there will be a building of similar size and frost-proof construction for warehouse purposes, with separate boiler and engine house. They propose to organize as a canning company in the near future and will manufacture a complete line of canned goods, making a specialty of tomato products this season. They expect to be in shape for operation about August 1 and will employ about sixty hands. They are installing the latest models of machines in order to put the highest class of goods on the market.



Bird's-eye View of the Plant of John Morrow Screw and Nut Co., Limited, Ingersoll

Reliability of Product — Generous Treatment

The care of those who buy from us is our first consideration. Our customers must be pleased and satisfied or we are not content with the deal

YOU RUN NO RISK WHEN YOU BUY

Morrow **Screws**
Morrow **Nuts**
Morrow **Bridge Reamers**
Morrow **Engine Studs**
Morrow **Twist Drills**
Ingersoll **Files**

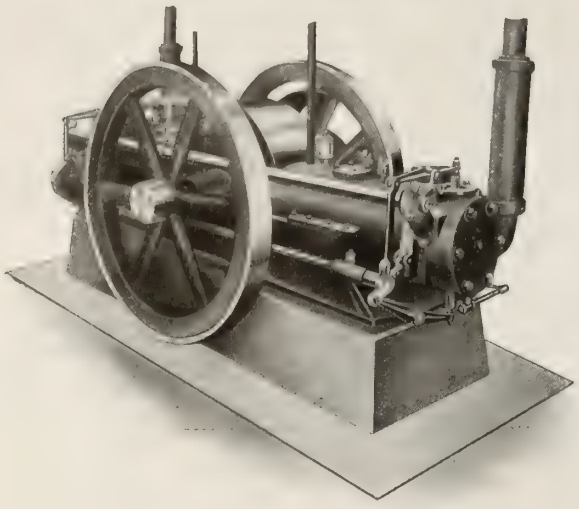
All made ***a little better than seems necessary***

John Morrow Screw & Nut Co. Limited

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Sole Distributors of Ingersoll File Company's Files (***the kind that cut faster and wear longer***). Order from your jobber, but if he cannot supply you order direct

POWER



We manufacture Engines from 2 to 50 H.P. Single and Double Opposed Cylinders—Operate on Gas, Kerosene, Naphtha, etc.

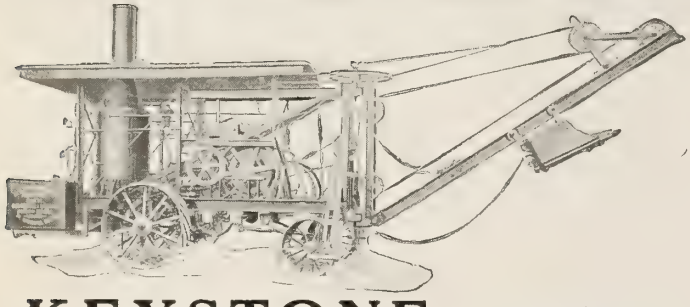
The Highest Grade on the Market—Thousands in operation.

Tanks and **Towers** for Sprinklers, etc.

Concrete Mixers, Kerosene Tractors, etc.

Goold, Shapley and Muir Company, Limited

Brantford Portage La Prairie Regina Calgary



KEYSTONE EXCAVATOR MODEL 4

Splendid range of work. For street and road work, ditch digging, cellar digging, loading and unloading, etc., it has no equal. Travels under its own power. Weighs 12 tons. Made complete in Canada. Deliveries from stock.

Send for Illustrated Bulletin

Engineering & Machine Works of Canada, Limited

St. Catharines Ont.

Eastern Sales Offices: Hall Machinery Co., Sherbrooke and Birks Bldg., Montreal, Que.

More Coke Ovens

Dominion Iron and Steel Co. Have Placed Order for a Third Battery of By-product Ovens

The Dominion Iron & Steel Co. have recently placed an order with the Koppers Co. of Pittsburg for a third battery of by-product ovens, sixty in number, similar in every respect and to be worked in conjunction with the two batteries built by the same company and put in operation in October, 1919, and March, 1920. Referring to the installation, *Iron and Steel of Canada* says:—

"A look around the coke-oven department of the Dominion Iron & Steel Company affords a microcosm of the history of by-product coke plants. The first ovens built around 1900, were among the first by-products ovens in America. They were of Otto Hilgenstock type, and about contemporaneous with the similar plant designed by Dr. Schneewind for the Everett Gas Co. near Boston. They long since were abandoned, and are now being utilized for the construction of brick-kilns in connection with the silici-brick plant the Steel Company expects to erect immediately.

"Further back from the railway track is the No. 2 Battery of by-product ovens, only recently representing the best type of construction, but now idle and awaiting conversion and repair to bring them more up-to-date.

"It is conceivable that even the latest Kopper ovens, which without exaggeration, are believed to be the most efficient installation yet completed and have exceeded the expectations and guarantees given, will in another ten or fifteen years be superseded by something better. For the time being, however, the Dominion Steel Company possesses a coke-oven plant of which its officials are justly proud, nor is it to be expected that even the latest addition will supply the coke requirements for very many years to come."

Woodworking Plant

Forest Products Limited, Start Operations on Fairly Large Scale at Parry Sound

The plant of the Parry Sound Lumber Co., at Parry Sound, has recently been taken over by a new company called Forest Products, Limited, in which several local men are interested. It is the purpose of the new company to work gradually into better grade furniture lines, starting with kitchen tables and toys. They have an authorized capital of $100,000, of which $40,000 has been issued. The plant contains 40,000 square feet of floor space. On the ground floor they are installing an edger, a re-saw and a big transit machine, and on the upper floors 15 manufacturing machines, each with its own motor. They will have about 30 hands at work by August 1. The president of the company is Jas. Ludgate, a well-known lumberman; J. P. Weeks, barrister, is secretary-treasurer, and R. Lyons, managing director. The latter has had a long experience in the woodworking industry.

Asphalt Roofings

Beaver Board Companies are Locating a New Industry in Their Ottawa Plant

A new industry for Ottawa will shortly be established in the plant formerly occupied by the laminating department of the Beaver Board Companies. This department was recently moved to Thorold. The new product will be asphalt roofing, and machinery for its manufacture is now being installed. The industry will be known as the Roofing Division of the Beaver Board Companies, and it is expected that manufacturing will be started during September. About forty men will be employed.



GENERAL VIEW HAMILTON WORKS



CANADA WORKS HAMILTON

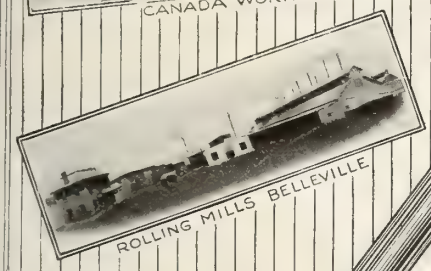


DOMINION WORKS MONTREAL

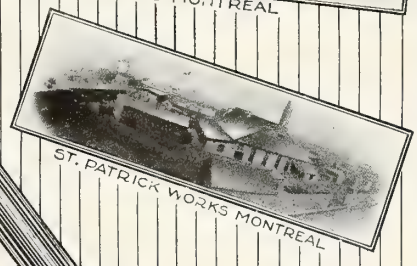
Quality

THE
STEEL COMPANY
OF
CANADA
LIMITED
HAMILTON MONTREAL

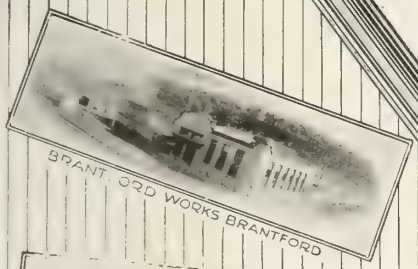
Service



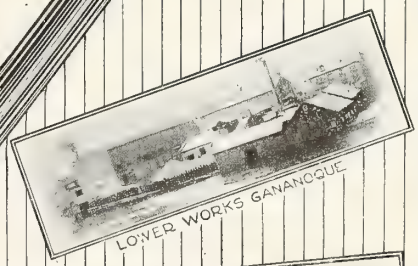
ROLLING MILLS BELLEVILLE



ST. PATRICK WORKS MONTREAL



BRANTFORD WORKS BRANTFORD



LOWER WORKS GANANOQUE



SWANSEA WORKS TORONTO



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GENERAL VIEW OF NOTRE DAME WORKS MONTREAL

These Plants and the Organization that directs and operates them, stand back of and Guarantee Quality and Service at All Times

GILBERT
ERECTOR

THE FAMOUS
STEEL CONSTRUCTION
TOY

and other educational Toys such as Electrical Sets—Wireless Sets—Magic, etc., etc., are now manufactured in CANADA

BY

The A. C. Gilbert-Menzies Co., Limited
439 KING STREET W., TORONTO
Manufacturers : GILBERT TOYS
Agents : GILBERT'S POLAR CUB ELECTRIC FAN AND MOTORS

Your Factory is Equipped with Labor Saving Devices---
How about your Home?



Let a Thor Washing Machine, Ironing Machine, Vacuum Cleaner and Walker Dishwasher lighten the work of your home

HURLEY MACHINE CO. LTD.
413 YONGE STREET, TORONTO

New Stationery Manufacturers

The Sinclair, Allen Co., Limited, Formed in Toronto to Manufacture Fine Lines of Stationery

An interesting new development in the stationery manufacturing industry is the formation of the Sinclair, Allen Co., Limited, Toronto. The new company, who are capitalized at $100,000, have as officers: President and general manager, N. A. Sinclair; vice-president, Thomas Allen; secretary, Thomas Blain Allen. Mr. Sinclair was for many years in charge of the stationery department of Warwick Bros. & Rutter, Limited, Toronto, and has lately had a year and a half's experience in New York. Mr. Allen is head of the publishing house of Thomas Allen. The company have leased an entire flat, containing 17,400 square feet of floor space, in the new manufacturing building on Adelaide Street at Spadina Avenue, and expect to start production about the middle of August. Their goods, which will consist of pads, papeteries and writing paper, will be known as the "Quality Line."

North America Antimony

Plans of Company are Dependent on Reports of Geologists and Mineralogists

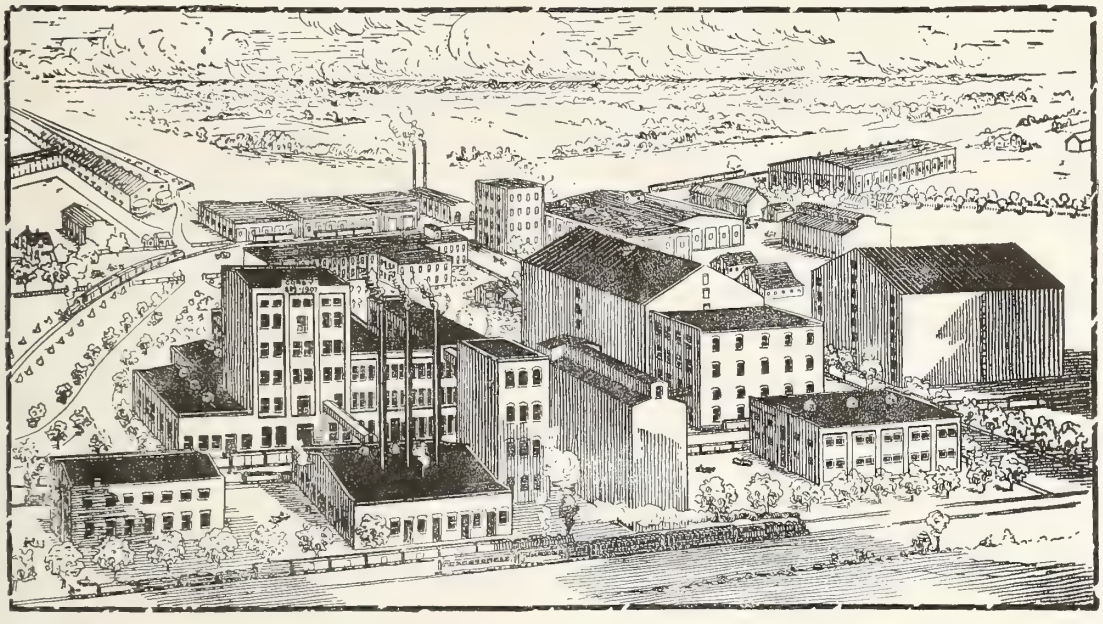
Plans of the North America Antimony Smelting Co., Limited, a company formed a few months' ago under the presidency of S. E. Elkin, M.P., of St. John, to consolidate a number of individual workings in New Brunswick, are still indefinite. Heretofore the mines were operated in a small way in the making of metallic antimony. It is proposed by the new company to manufacture golden and crimson sulphurettes of antimony, which are used largely in the rubber industry, and later possibly to undertake the manufacture of paints. Geologists and mineralogists are making extensive surveys of the property and, as soon as these reports are received, more definite plans will be formulated for the prosecution of the work.

According to a prospectus issued earlier in the year, the officers and directors of the company include S. E. Elkin, M.P., St. John, president and general manager; Walter F. Dixon, New York, vice-president; A. F. Saurel, New York, secretary-treasurer, and Messrs. W. H. Irvine, M.D., Fred B. Edgecombe and W. T. Chestnut, Fredericton, directors, with C. A. Crowe, mine manager. The company are stated to own all the area of antimony ore land in New Brunswick by mineral rights from the Government, comprising an area of sixteen square miles, and agreement of purchase, including 448 acres freehold, comprising a total area of eighteen square miles. These are claimed to be the only antimony deposits in Canada or the United States of magnitude or extent to maintain a smelting plant. There is already on the property the first units of a white oxide and smelting plant with a daily capacity of twelve tons of ore.

Make Bar Iron

New Brunswick Rolling Mills Co., Limited, Start Manufacturing Operations at St. John

The New Brunswick Rolling Mills Company, Limited, of which the incorporators are Harry J. Garson, Frank O. Garson and Joseph A. Garson, have acquired the plant and lands of the Portland Rolling Mills Co., Strait Shore, St. John, N.B., and are busily employed in manufacturing bar iron in all sizes, railway spikes, ship spikes, track bolts and mild steel bars. The company, who are capitalized at $99,000, have not yet completed their organization, but Mr. H. J. Garson is provisional president, Joseph A. Garson, secretary and C. H. Lissemore, superintendent.



Ethyl Alcohol 65 O.P.

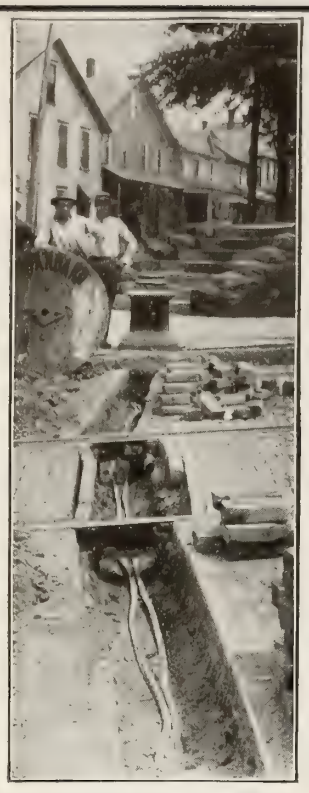
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Canadian Industrial Alcohol Company

Limited

Montreal, P. Q.

"The largest producers of Alcohol in the British Empire"



Laying STANDARD Steel-Tape-Armored Cable across a Street.

A 50 Per Cent. Saving

in the cost of installing underground electric cables is worth considering these days. A cable which can be laid directly in a trench in the ground without conduits may solve the installation problem before you.

STANDARD Steel-Tape-Armored Cables

are designed for this class of service, and have in many cases shown a 50 per cent. saving in installation cost as compared with single runs of lead-covered cables laid in conduits. Write for bulletin 680, which gives complete information.

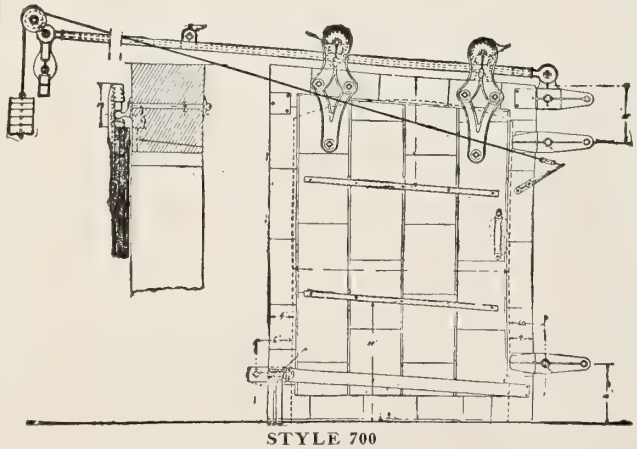
Standard Underground Cable Co. of Canada, Limited
Hamilton, Ont.

Montreal Hamilton Toronto Seattle

SLATER & BARNARD LTD.

Allith Manufacturing Co., Limited, Branch

HAMILTON, CANADA



STYLE 700

ALL MADE IN CANADA

Allith Fire Door Hardware is inspected and labelled by Underwriters' Laboratories (Inc.) SAVE MONEY and SECURE MAXIMUM PROTECTION by SPECIFYING ALLITH LABELLED FIXTURES for your Fire Doors.

Write us for prices on Parallel Door Equipment for your heavy Warehouse Doors

WE MAKE ALL STYLES OF DOOR EQUIPMENT

Guelph Plant Extends

Shinn Mfg. Co. of Canada, Limited, Will Erect Addition to Their Present Building

The Shinn Mfg. Co. of Canada, Limited, Guelph, are about to enlarge their plant. They will erect an addition, 30 x 70 feet, three storeys high, at the rear of their present building, using brick and concrete construction. They expect to complete and occupy the addition in the autumn and will be able to double or treble their present output of lightning rods.

Part of the new building will be occupied by the National Standard Co., a company recently incorporated for the manufacture of automobile tire braid.

Beaver Board Development

Company Take Over Plant of the Foley-Reiger Pulp and Paper Co., of Thorold

Important progress towards the expansion of their industry in Canada has been made recently by the Beaver Board Companies, whose administration offices are in Buffalo, N.Y. They have purchased the plant at Thorold of the Foley-Reiger Pulp and Paper Co. and will utilize its output in supplying ground wood for the Beaver Board finishing units at Thorold and Tonawanda, N.Y. The present production of the Foley-Reiger mill is about fifteen tons of ground wood a day. It is equipped with two grinders and five wet machines and is operated by water power. The power facilities are ample to serve additional grinders and it is proposed to instal these and increase the mill's capacity immediately.

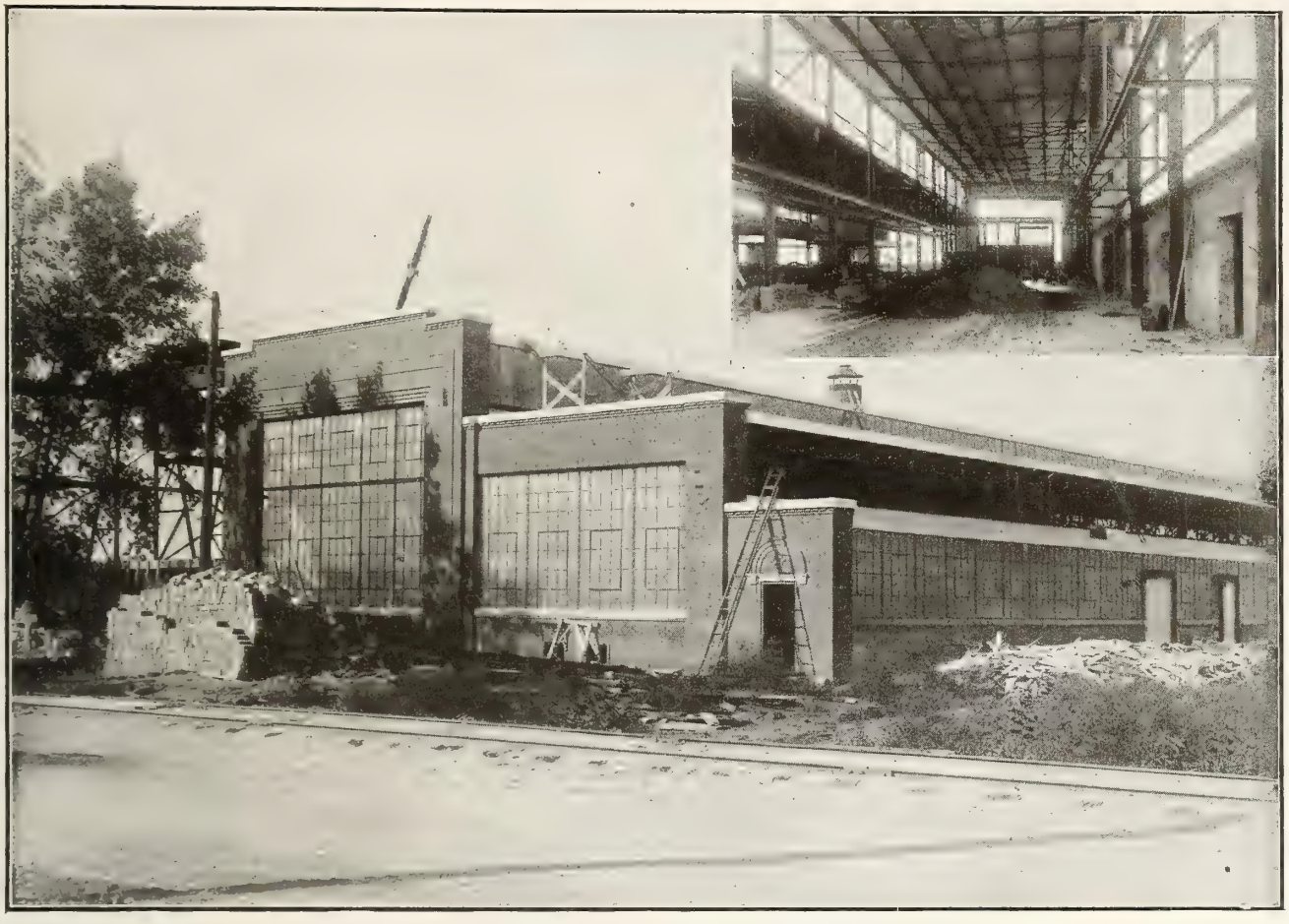
The purchase of the Foley-Reiger property is part of the company's definite policy of expansion. Last winter Canadian operations were concentrated at Thorold through the removal of the laminating plant from Ottawa, enlarging and improving its equipment and preparing it to operate with the two finishing units at Thorold. Thus the Thorold plant is now a complete system for manufacturing Canadian and some export requirements. It receives its logs from the Frederickhouse and Abitibi timber grants, grinds them into pulp and finishes and laminates them into the finished beaver board.

The company's development in the way of adding the manufacture of logically related building material lines is emphasized by their purchase of the business of the Patent Vulcanite Roofing Co. of Chicago. This company, the third largest manufacturers of prepared roofings in the United States, is now operated as their Roofing Division. For Canadian requirements, a plant is now under construction at Ottawa which will be completed within a few months and manufacturing for the Canadian market will be begun immediately.

New Knitting Company

The Celtic Knitting Company, Limited, Start Operations in City of Montreal

The Celtic Knitting Company, Limited, who were recently incorporated with an authorized capital of $200,000, have started operations at 14 Turgeon Street, Montreal. It is their intention to produce ladies' silk hosiery, ladies' and children's coats and jerseys made from all-wool jersey cloth, and men's cashmere underwear. It is not their intention to erect a new plant at present but they have rented sufficient space for their requirements. Mr. A. C. Howatson is managing director.



HOLMES FOUNDRY BUILDING, SARNIA, ONT.

H. M. Lane Co.,
Architects

Wells & Gray Ltd.,
Contractors

Plant recently completed for Holmes Foundry Co. We have the organization and equipment to carry on Industrial buildings of all kinds in the quickest possible time.

Wells & Gray Limited

ENGINEERS and CONTRACTORS

Branch Office:
Bank of Commerce Bldg.,
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Head Office:
701 Confederation Life Bldg.
TORONTO

What "KODAK" Means

As a word, a trade name, "Kodak" is simply an arbitrary combination of letters.

As a trade-mark, "Kodak" indicates certain of the products of the Kodak Companies to which it has been applied, as, for instance, Kodak Cameras, Kodak Tripods and Kodak Film Tanks.

As an institution, "Kodak" stands for leadership in photography. To the world at large it is best known for its simplification of photography for the amateur, for its Kodak and Brownie Cameras, for its films and papers. To the professional photographer, it is known for its progressive leadership in the manufacture of everything that is used in the studio. In the cinema world it is known as the producer of the film that made the motion picture possible. To the scientist, it is known for its X-Ray products, now so vital in the mending of men.

In 1888, when the two "k's," the "o," the "d" and the "a" were euphoniously assembled, they meant nothing. To-day they mean protection for you in the purchase of photographic goods.

If it isn't an Eastman, it isn't a Kodak

CANADIAN KODAK CO., Limited

Toronto, Canada

The

Canadian Meter Co., Ltd.

Manufacturers of

METERS

For Acetylene, Coal, Gasoline and Natural Gases also for Air

Office and Works:

HAMILTON, CANADA

90 CAROLINE STREET N.

New Foundry Building

Record Foundry & Machine Co., Moncton, are Completing a Large New Structure

An important addition is being made to the plant of the Record Foundry & Machine Co., manufacturers of stoves, ranges and furnaces, Moncton, N.B. It is a building 370 feet long by 50 feet wide, one storey, reinforced concrete. It will include mill room, mounting room, nickelling room, crating room and sheet metal and tin shop. The cost, when completed, with machinery installed, will be about $75,000. It will all be completed by August 1, but a part will be in operation commencing July 10. The building will be modern in every respect and will enable the company to employ more men and increase output.

New Motor Company

Stansell Motors Limited will Produce a Canadian Light Six Car at Amherstburg

An interesting new development in the Canadian automobile industry is the formation of Stansell Motors, Limited, in which Detroit and Amherstburg capital is interested. The capitalization authorized is $500,000 and the purpose is to make a purely Canadian light six car of distinctive type. At first this will be an assembly proposition, using only the best standard parts, and these have already been contracted for and delivery commenced. Later it is the intention to manufacture all necessary parts. The anticipated production under full running force is from 10 to 16 cars per day, and approximately 50 men will be employed during the first year. It is expected that the first demonstration cars will be in hand by the first of August and an estimated production of 1,100 cars is expected within the ensuing twelve months, this number having already been contracted for.

The company have secured and hold a ten-year lease from the municipality of the town of Amherstburg of a large brick factory, 75 x 150 feet, built by the municipality several years ago for the purpose of manufacturing automobiles. They rent it at $1.00 per year, with the option of buying both factory and site at the end of this term for a nominal sum. The site is a large one with plenty of room for expansion, and the Michigan Central Railway now has a switch running into the yard.

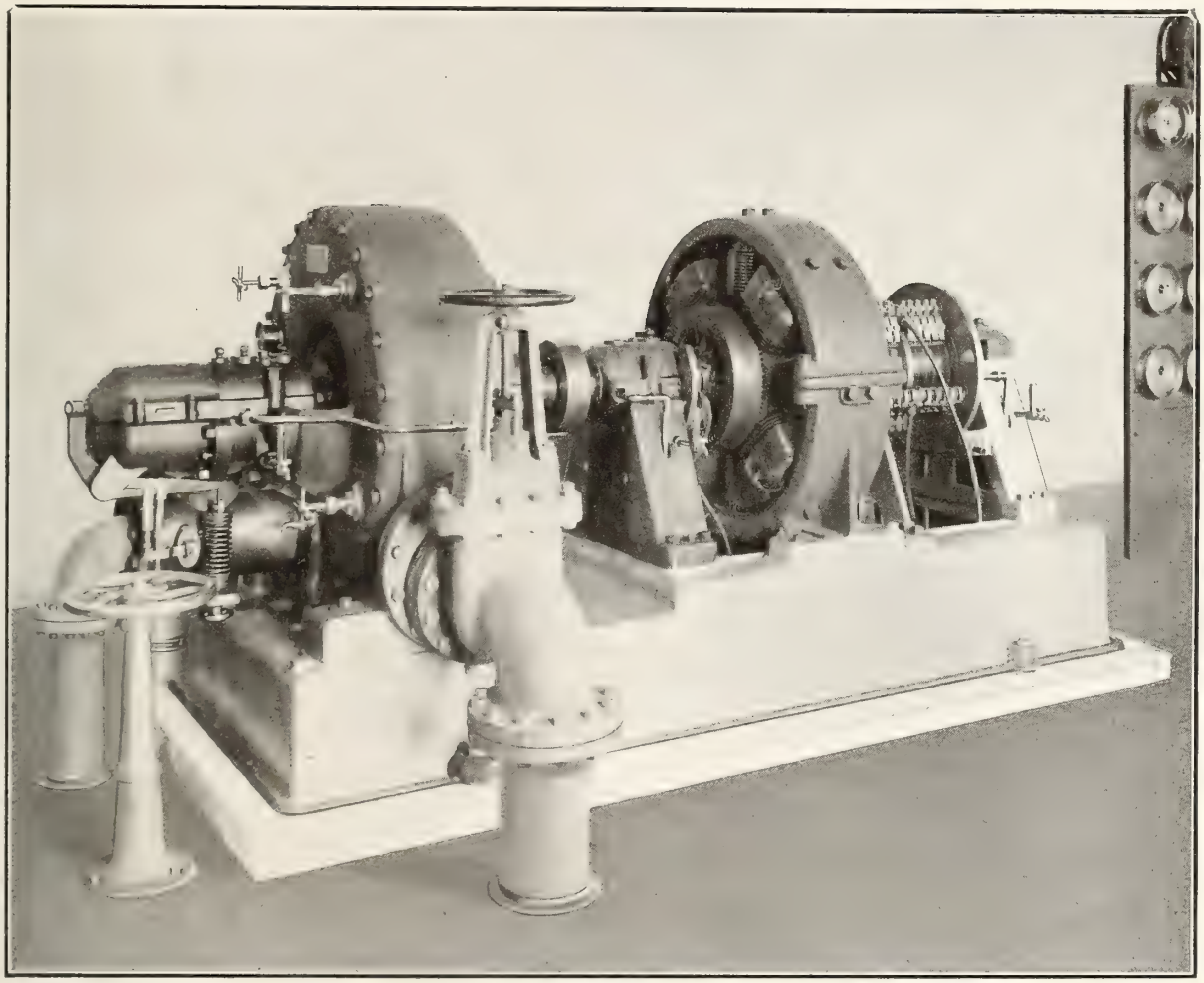
The president of the company is J. B. Whitley, Detroit; vice-president and general manager, W. R. Stansell, Amherstburg; secretary-treasurer, F. P. Davey, Detroit; directors, J. C. Veale, Detroit, and F. A. Parke, mayor of Amherstburg.

Build New Plant

The O-Rib-O Manufacturing Co., Winnipeg, Have Sold Their Present Premises

The O-Rib-O Manufacturing Company, who manufacture air-tight heaters, stove pipes, coal shutes, steel garages and metal specialties, have sold their present factory at 233 Stradbrook Avenue, Winnipeg, to the Eternal Battery Company of Winnipeg, and have purchased a piece of land on Erin Street north of Portage Avenue with a frontage of 125 feet and a depth of 200 feet with a railway track spur. On this property they will erect a factory 40 feet x 200 feet, two-storeys high, of concrete and brick construction. This company are adding special machinery for manufacturing warm air fittings, a line which they purpose going into extensively. They hope to be in their new premises by August.

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A G. & McC. "WAIT" Steam Turbine at St. Boniface Hospital, St. Boniface, Man.

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A Huge Amalgamation

Formation of the Riordon Co., Limited, Means Consolidation of Many Important Interests

One of the most important industrial developments of the month has been the formation of the Riordan Company, Limited, which takes over the properties and assets of the Riordon Pulp and Paper Co. and the Kipawa Co., Limited, together with all the issued capital stock of the Gatineau Co., Limited, a company incorporated to acquire the assets and properties of Gilmour & Hughson, Limited, and W. C. Edwards & Co., Limited. The Riordon Co. will also own over 60 per cent. of the outstanding capital of the Ticonderoga Pulp & Paper Co.

In discussing the merger in the daily press, Mr. Carl Riordon, vice-president and managing director of the Riordon Co., Limited, said:

"Hitherto the resources of the Ottawa and Gatineau Rivers have been operated by several companies, chiefly for the production of white pine lumber, without an effort having been made to develop on a large scale the raw materials available for the production of sulphite pulp, paper and hardwood lumber. It is felt that the Riordon Company should naturally undertake the more intensive development of the large properties now brought under its control.

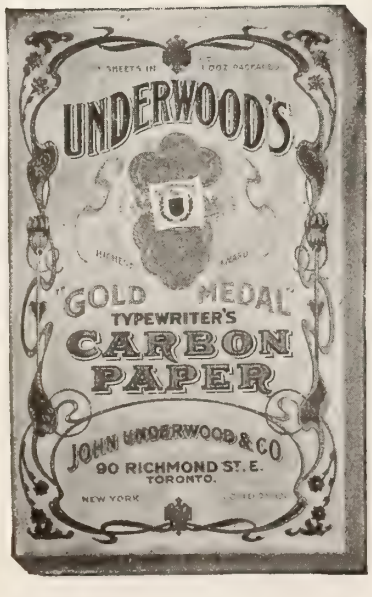
"The merging of the existing resources of the W. C. Edwards Company, the Gilmour & Hughson Company and the Riordon Pulp & Paper Company will permit of economy in production and marketing, and of scientific development of the properties. At a time when American supplies of pulp and other woods are evidently running low, making it eminently expedient for Canada to attain a maximum of production from the minimum of raw materials at the minimum of cost, we aim to extract the greatest value obtainable from every thousand feet of timber and every unit of waterpower which we own, through unified control of vast holdings of wood and water powers and of diversified plant equipment."

The combined timber holdings of the business merger will approximate 10,590 square miles. The pulpwood holdings are estimated to contain 25,000,000 cords of pulpwood, while the stand of white pine is estimated at 1,200,000,000 feet. The company's sulphite pulp output consists of 91,000 tons per annum of bleached and 8,000 tons of easy bleaching. It produces 11,000 tons per annum of soda pulp and 18,000 tons of high-grade book paper. Of lumber, the present output is 125,000,000 feet per annum. With construction at Kipawa completed and reducing lumber production to terms of pulp and paper, the new company will produce the equivalent of 275,000 tons of pulp and paper per annum.

Move to Toronto

Davis-Bournonville Co., Remove Their Plant From Niagara Falls to Toronto

The Davis-Bournonville Company have completed and occupied their new plant at 32-34 Eastern Avenue, Toronto. The company were previously located at Niagara Falls, with sales offices at 168 King Street West, Toronto, but now both plant and office will be under one roof. The new building is 50 x 110 feet, of brick and steel, two stories high, and here they will manufacture all their lines for the Canadian trade, including oxy-acetylene welding and cutting apparatus, barrel-welding machines, and other automatic equipment. They have installed a model generator, which distributes acetylene to the welding and testing stations throughout the plant, and altogether have very considerably increased capacity and improved equipment. If the situation warrants, it is their intention to establish a welding school in connection with their plant, in charge of a competent instructor.



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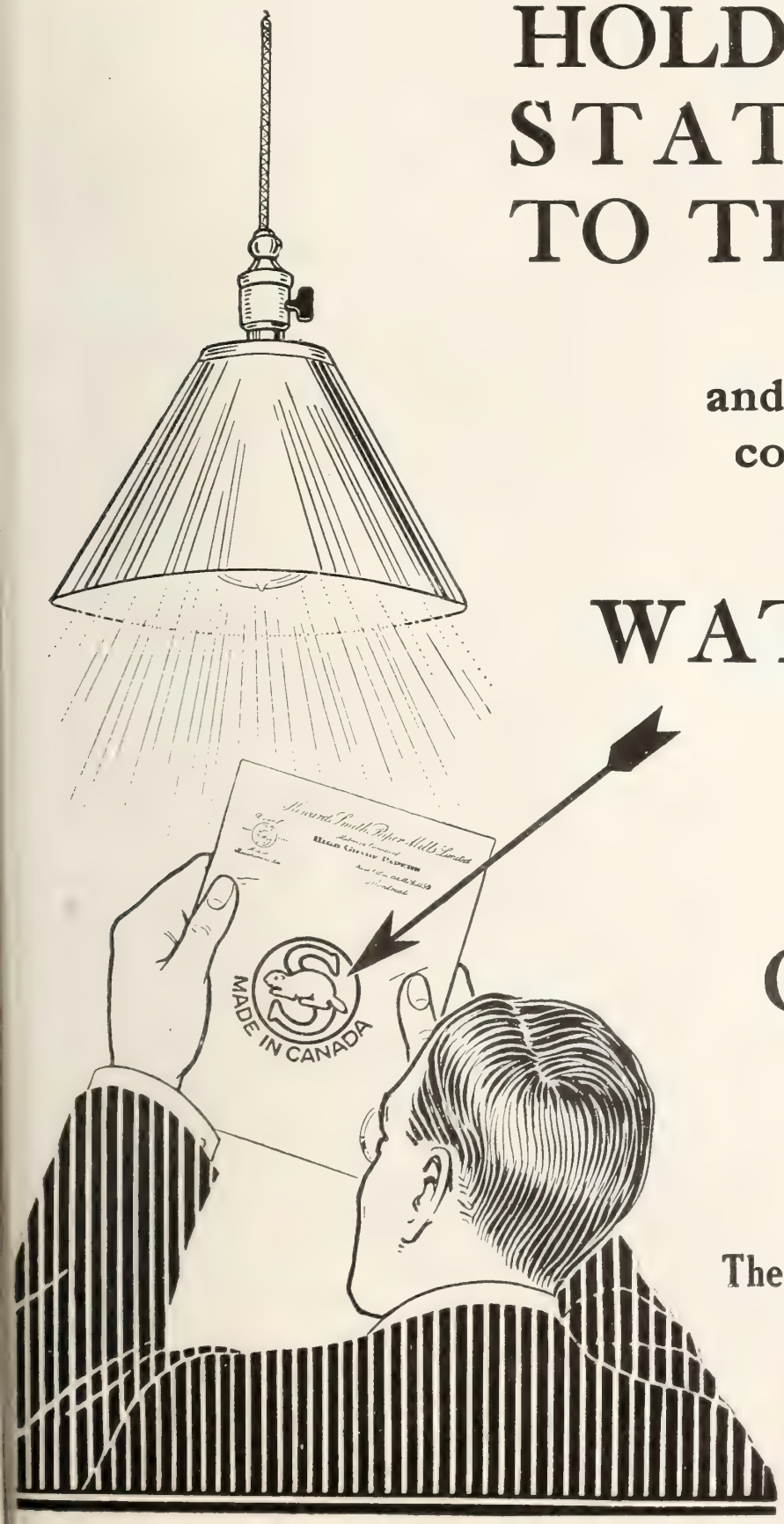
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Consider Enlarging

Canadian Vegetable Parchment Co., Limited, May Install a Second Machine

The Canadian Vegetable Parchment Co., Limited, which started operations on March 15 at their mills at Merriton, Ont., report that they are selling all the parchment paper they can make and the directors are considering the installation of a second machine. Their product has been favorably commented upon by users, who consist principally of proprietors of dairies, creameries, etc. They are the first company to make this kind of paper in Canada.

Paper Mill Machinery

Description of the Plant at Lachine of the Dominion Engineering Works, Limited

The June issue of *Iron and Steel of Canada* contains a description of the plant of the Dominion Engineering Works, Limited, the company recently formed by Dominion Bridge Co. interests to undertake the manufacture of paper mill machinery. From the description the following information about the undertaking is culled:

The company have taken over the erecting and machine shops of the St. Lawrence Bridge Co. at Lachine, which were erected in 1912 for the fabrication of the Quebec Bridge. They are of substantial fireproof construction, well laid out and with railway sidings. The main building is 660 x 220 feet, with two erecting bays 85 feet and 75 feet x 220 feet respectively and side bays, 60 x 440 feet, containing boiler house, power house, tool room, etc. The crane equipment is particularly complete.

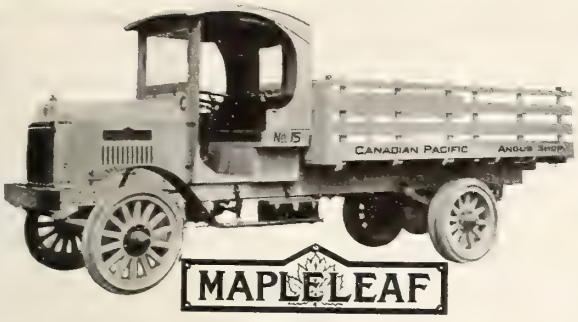
The foundry as at present used is a building 145 x 181 feet, but will shortly be enlarged to 145 x 330 feet. The cupolas comprise one of 84-inch diameter, not yet installed, but which will replace a 37-inch cupola now in place, and one of 54 inches. There are two casting pits, but the foundry extension will be equipped with a casting pit, 120 feet long by 30 feet wide and 8 feet deep, intended for pouring the large castings to be used for the water turbines. The pattern shop is a separate brick and steel building, 176 x 60 feet.

At the present time the works are building two 166-inch high-speed newsprint machines for the Laurentide Co., and a 148-inch Harper tissue paper machine for the Interlake Tissue Mills. There has already been completed one 48-inch fourdrinier writing-paper machine for the Howard Smith Paper Mills. The company are also building two 20,000 h.p. water wheel units for the Laurentide Co.

Remove to Galt

McCaskey Systems, Limited, Will Locate in Galt About Middle of Month

McCaskey Systems, Limited, manufacturers of counter check books and credit register systems, have recently purchased a munition plant in Galt, Ontario, where their head office and factory will be located after the middle of July. This company have outgrown their present location at 255-245 Carlaw Avenue, Toronto, to such an extent, that much larger premises are required to handle their rapidly increasing business. The new factory at Galt is most modern in every respect and several new high-speed machines are being added which will practically double the present equipment of their plant. McCaskey Systems, Limited's business is confined principally to the retail merchants, but their industrial systems for manufacturers are meeting with considerable recognition, as are also the physicians' and surgeons' systems for professional men. The most rapid development of their business in the past two years has been that of the counter check book department.



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Belleville Industries

New Industrial Commissioner Reports Location of Seven Industries During the Year

In his first report to the mayor and city council of Belleville, C. I. White, Industrial Commissioner, reports the location of seven new industries since June 14, 1919. The Elliott Machinery Co. took over the premises of the Burrell Rock Drill Co., local parties invested some capital and the plant in now running and employing sixty men. The Judge Jones Milling Co. were located in the new building of Grahams, Limited. The H. A. Woods Mfg. Co. were located through the efforts of Mr. R. J. Graham and will manufacture valves, automobile steering wheels and door locks. This company have also purchased the patent rights of the Tilting Detachable Steering Wheel. The Natural Tread Shoe Co. will start operations as soon as their machinery is installed. The Toronto Hat Mfg. Co. have commenced operations, and the A. S. Richardson Co., Limited, will commence operations in the near future in the east wing of the H. A. Woods Mfg. Co. building. The Weed Harvesting Machine Co. will commence operations just as soon as machinery can be installed. When these new industries have developed to the point expected, they will employ upwards of 500 hands.

Chemical Products, Limited

Eight Per Cent. Cumulative Participating Preference Shares Being Floated

One of the most interesting industrial offerings of the day is that of the 8 per cent. cumulative participating preference shares of Chemical Products, Limited. This was preceded by a campaign of press publicity in which the importance of the chemical industry in general was emphasized. The company's capitalization consists of $2,000,000 preference shares of which $1,700,000 are being issued, and 100,000 shares of common stock of no par value, of which 75,000 shares are being issued. The offering is being made by Graham, Sanson & Co., Toronto.

Chemical Products, Limited, were incorporated February 28, 1920, succeeding Chemical Products of Canada, Limited, organized in 1916. The latter company successfully operated a plant in Toronto, but the new company have taken over the property of British Chemicals, Limited, Trenton, and will develop it. The plant includes 120-ton sulphuric acid plant and concentrator; 70-ton nitric acid plant; storage tanks, distilling plants; 100-ton ice plant; a boiler plant with total capacity of 2,000 h.p.; an ample fire protection system with about five miles of underground water lines.

As laid out by Chemical Products, Limited, their plant will consist of five units—No. 1, acid phosphate plant, with minimum annual capacity of 75,000 tons; No. 2, sulphuric acid plant, with capacity of 120 tons a day; No. 3, refined nitrate of soda, epsom salts and general chemicals; No. 4, salicylates of allied derivatives, viz.: aspirin, salicylic acid, sodium salicylate, oil of wintergreen, cresotinic acid; No. 5, ammonia and coke oven by-products.

Directors of the company include R. J. Copeland, Toronto, president and general manager, J. C. Graves, Saginaw, Mich., vice-president; W. H. Van Winckel, New York, vice-president; Col. H. Cockshutt, Brantford; D. M. Sanson, Guelph; T. E. O'Reilly, Toronto; T. P. Birchall, Montreal; R. J. Cluff, Toronto. The actual direction of the plant, operating and works management will be in the hands of Mr. A. H. C. Heitman, an experienced and successful chemical plant operator.

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New Chemical Plant

Soda Deposits Limited, of Calgary, Locating New Industry at Fusilier, Sask.

John O. Williams, managing director of Soda Deposits, Ltd., Calgary, furnishes the following information about the plans of this company for development at Fusilier, Sask. Writing early in June, Mr. Williams says that the company expect to commence building operations at once, and should be producing by the end of July. They propose to manufacture sodium sulphate or salt cake, glauber's salts, and glass-makers' salt cake. The first unit of their plant will turn out twenty tons of dry sulphate per day, and gill give employment to twelve persons. So far the organization of the company, which is capitalized at $100,000, was incomplete.

New Galt Factory

The Yale Shoe Mfg. Co. to Establish Fifth Shoe Industry in Galt This Summer

Galt's fifth shoe industry will be started about the first of August by the Yale Shoe Mfg. Co. in the stone building formerly occupied by the Riverside Silk Mills. This is a four-storey structure, 40 x 90 feet. The company will make boys' and men's McKay shoes and will start with about forty employees. They are chartered and capitalized at $40,000, with the following officers: President, R. K. Serviss; vice-president, R. F. Scott; secretary-treasurer, G. Malcolm; superintendent, F. Englert; sales manager, F. R. Delafield.

Take Over St. John Plant

Murray Co. of Canada, Limited, Secure Plant of Wilson Chemical Company

The Murray Co. of Canada, Limited, are a new incorporation, associated with the Murray Co. of Boston, who have taken over the plant of the Wilson Chemical Co., St. John, N.B., and have commenced the manufacture of fruit syrups and similar products, largely for use in connection with soda water fountains. Owing to the high price of sugar and to causes incidental to a new business, the company are not manufacturing very extensively at present, but are making preparation for a larger output in the near future. The incorporators are H. W. Wilson, Leon A. Keith and Milton E. Murray. The capital stock is $99,000. Mr. Keith, a St. John broker, is president; Mr. Murray, vice-president, and Mr. Wilson, manager.

Will Double Capacity

Wells Bros. of Canada, Limited, Change Name and Increase Their Capital

Wells Bros. Co. of Canada, Limited, manufacturers of taps, dies and screw plates, Galt, Ont., are changing their name to the Greenfield Tap and Die Corporation of Canada, Limited, this being more in harmony with the name of the parent concern at Greenfield, Mass. They are at the same time arranging for an increase in their capital stock from $40,000 to $250,000. It is their intention to increase their capacity by erecting new buildings, which will give them more than double their present floor space.

A by-law fixing the assessment of the Montrose Division mill of the Provincial Paper Mills, Limited, at $125,000, was carried on June 10 by the ratepayers of Thorold. The original fixed assessment was $20,000, and this was renewed in later years. The mill is one of Thorold's largest industries.

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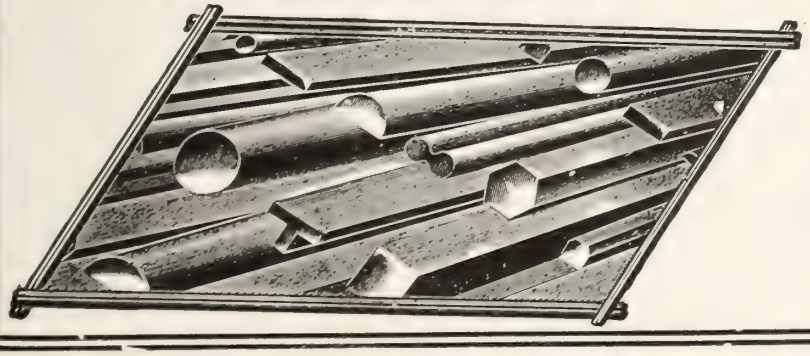
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Human Element in Production Engineering

An Appeal for Greater Harmony in Industrial Relations—The Obligations Resting on Both Parties—Higher Wages not the Solution of the Problem, but Greater Production and More Economy

By G. S. HUTCHINSON
Vice-President, Sherman Service, Limited

AN employer may build the most modern plant possible to construct, and equip it with the best machinery procurable, but his efforts will be in vain without the human element to operate it.

Further than that, he cannot expect a whole-hearted response from this human element unless he gives it at least as much thought, care, and attention as he does his equipment.

The employer naturally desires a "full value" return from his investment in equipment, and therefore does not hesitate to supply whatever means may be necessary to bring his machinery to a full capacity operation. Is he doing as much for the human element in his plant?—that element without which his machinery is useless?

One of the favorite methods of many concerns is the employing of the "Stop Watch" method. This is done openly, and the workers feel their rights are being invaded. They feel the boss is suspicious and that he is taking this means of showing them that he is wise, or, in other words, the boss did not believe that the workers were doing their duty or this "Stop Watch" man would not have appeared.

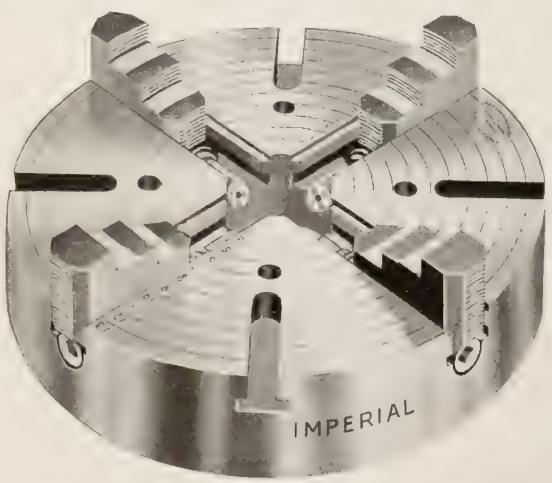
This being the case, they at once get busy trying to devise some way to beat the man with the "Stop Watch." After some time study the workers are ordered to do their work in just such a manner as the person installing a system may see fit, and no suggestions or co-operation from the workers is desired, which causes the workers to feel that they are being used simply as machines and not as human beings. There is nothing in the system that takes into account the limitations of the human body, and what a man can produce in a day, when everything is favorable, workers are driven to produce every day, without any regard to the circumstances, climatic or physical conditions.

There must be more of the human relationship between the employer and the worker; Labor can no longer be considered as a commodity to be haggled for in the open market. Loyal service should command something more than the minimum which it will bring in competition.

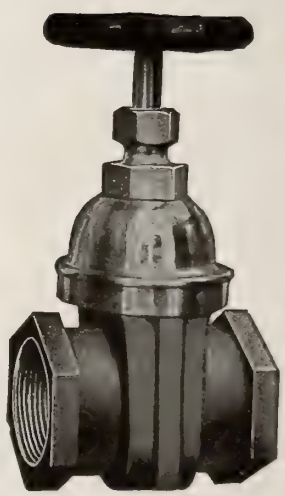
On the other hand, and of quite equal importance, employees must be loyal to their employers. Agreements once fairly made must be sacred, and so must be observed. Labor's word must be as good as its bond. And if, as I said before, loyal service should merit more than the frigid observance of hard and fast agreements, loyalty of service should mean more than the grudged exchange of a minimum of work for a maximum of compensation.

Capital cannot expand without Labor. Labor cannot live without Capital. Deny the country the support of either,

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Highly Endorsed by Canada's Best Manufacturers
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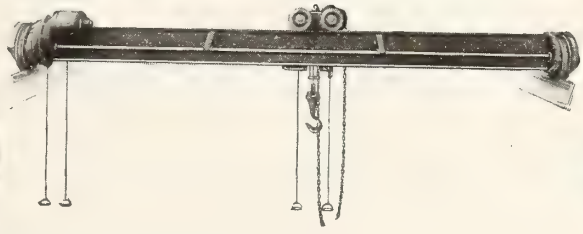
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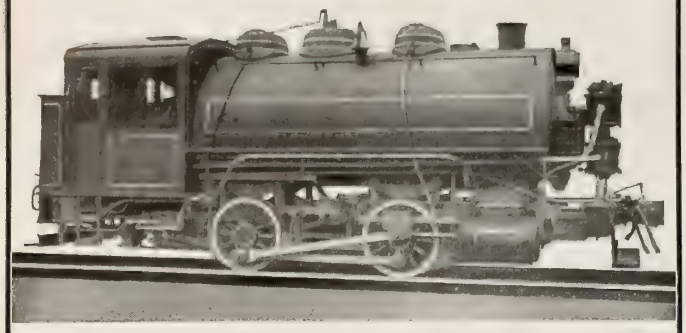
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LIMITED

Steel Products. Open Hearth Basic and Acid, Electric and Alloy Steels.

Castings. For Ships, Railways, Rolling Mills, Gears, Machinery, and Ingots to 35 tons.

Railway Specialties. Penn Couplers, Bolsters, Truck Side Frames, Draft Gears.

Forgings and Billets. Heavy Ship Forgings, Locomotive and Car Axles, Miscellaneous Forgings.

Plates. Plates and Heavy Sheets to 30 inches wide, Soft and High Carbon, Automobile Plates and Sheets.

Agricultural Steel. Soft Center and Solid Plow Steel, Harrow Discs, Shovel Steel, Cultivator Blades.

DOMINION FOUNDRIES AND STEEL LIMITED
HAMILTON - ONTARIO

and it must die. The ranks of both elements are made up of human beings, each depending upon the other for maintenance, and the country depending upon both for existence; and there is no earthly reason why the two cannot get together, co-operate and work in harmony for the betterment of all.

It is not a question of what you *want* to do, or a matter of catering to your own particular desires. But rather is it a question of good business judgment. Employers who read "the writing on the wall" granted this inevitable recognition and drew their workers into a closer personal contact and business association, purely as a matter of policy, are to-day enjoying the fruits of their foresight.

To-day Labor realizes more consciously than ever before the dawn of a new era, in which its decisive function has become finally apparent. Now, more than ever before, is needed that whole-hearted and sincere co-operation between Capital and Labor that will quickly and permanently place Canada upon a solid industrial foundation.

And to-day the world is turning to Labor to build anew upon the ruins created by four years' of madness. The man in overalls steps into a new "firing line," where the order is not to "destroy" but "create."

Canadian labor has never betrayed its trust, and it will not do so now, in the face of the great crisis of reconstruction, when the future depends so largely on its courage and loyalty.

What may come in the way of popular control, as education advances, none can say. That the worker will undoubtedly gain a voice in the management of industry—and a large voice at that—is a fairly safe prediction, but joint control of industry is a problem that offers many difficulties, and it is well that the worker should go into it with a knowledge of all it implies. The appointment of Labor representatives on controlling bodies in industry is undoubtedly a step in the right direction, but the worker must be prepared to accept their limitations, to consider the industry first and foremost, and to abide by the results of the joint action of his own representatives and those of the employment class.

Compromise the Difference

Can we not compromise for the time the difference between Capital and Labor, between the various interests that are risking our future for the sake of their own particular grievances and co-operate in another ideal equally great?—the restoration of peace and the return of prosperity on a better foundation. With this accomplished, the separate ideals of the industrial divisions of our society can be discussed with far more chance of fair adjustment than is possible in these difficult times. We shall, I hope, settle our problems with reasonable fairness and common-sense, and so improve the relations between Labor and Capital, that the country can do its very best in production, and thus enable our country to bear cheerfully the cost of the war, and, better still, make every returned soldier think that such a country was worth fighting for.

Trade union leaders are becoming interested in the idea of industrial democracy. It is not an exotic plan from Soviet Russia. Adult educational classes, university extension courses, the definite linking up of organized labor with the universities, night schools, and study groups, conducted with increasing success in the last few years, have helped to educate the manual workers to their present advanced position. The barriers of caste between manual workers and technical and professional labor are disappearing. Doubtless the common experience of men in the trenches has helped to hasten this change. An understanding be-

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HOYT METAL COMPANY
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tween Labor and Capital, not necessarily a coalition, but a recognition that each is moving in the same direction as the other on policies such as democracy in industry, should have a profound influence on the economic readjustment in Canada.

I do not propose to discuss the why and wherefore of high prices or the extent to which they are due to the inflation of credit and currency. It is enough that they are here and that everybody suffers from them. Surely, however, the time has come to look at the position from a somewhat different angle, and the workers particularly may be asked to consider whether demands for still higher wages are likely to solve the problem, and whether they are materially better off for some of the recent concessions they have obtained. They have secured several substantial increases, and at the same time a considerable reduction in working hours. It should now be their aim, and that of other leaders, to get the fullest effective value out of what they have won. That cannot be done by clamoring for further increases, or the whole weary circle will have to be trod again, but it can be done by increasing production and by practicing economy until supply overtakes demand. Only thus can the value of our dollar be restored to something much nearer one hundred cents than it is at present, and no effort must be spared to accomplish this.

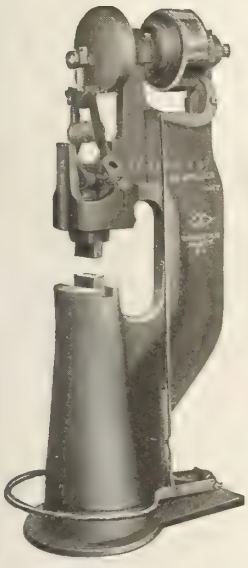
The foreman in modern industry is the link between the Management and the rank and file of Labor. The policies of the Executive regarding production and other matters are transmitted to the employees through the agency of the foreman. It has been said that a great part of Labor disturbances is directly due to unskilful handling of men by foremen. Whether or not this is so, all parties are due to benefit from greater efficiency on the part of the supervisors. The foreman is the key to production. He stands between Labor and Management, and is, therefore, in a strategic position in industry. All the policies of the management, all its ideals and its production orders, must pass through the foreman, who is, therefore, in a position to make or mar its successful operation.

In the days when national problems are occupying the attention of everybody, it is difficult to get men to think soberly of questions of personal duty. Yet the future of our nation depends upon what we do as individuals. The two words that should be in our minds are "Produce" and "Save." Nothing is needed to-day so much as production. If the world is short of food, clothing, and material for building, there is only one thing to do, and that is to hurry up with production. This is no time for wrangling and fighting over hours and labor. The only sensible thing to do is to get busy and supply the world's need. Until it is supplied, we cannot have anything but unrest. The man who loafs or wastes the day is an enemy of his country and to mankind.

At the present time industrial conditions are acute, owing to a general feeling of unrest, and the necessity of a means to bring about better understanding is more than ever apparent.

A very small amount of corrective influence, properly applied, will effect a cure when the relations have not reached a serious condition of estrangement. Wise industrial heads realize this, and for their protection and as an investment maintain certain corrective and educational influences in their plants continuously. The value of this is indisputable and the results obtained fully justify them in making the relatively small investment necessary.

JARDINE
Canadian Giant Power Hammer



There is nothing like it for rapid and accurate production of light to medium forgings.

No. 25 forges up to 2" stock.
1 Horse Power drives it.
Weight 825 lbs.
Price $171.00.

No. 50 forges up to 2½" stock.
2½ Horse Power required for heavy work.
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A. B. JARDINE & CO., Limited
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STRUCTURAL STEEL
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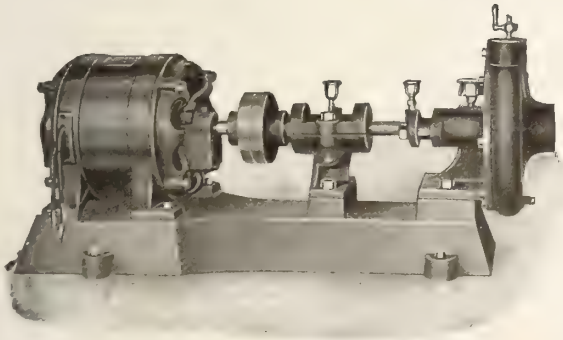


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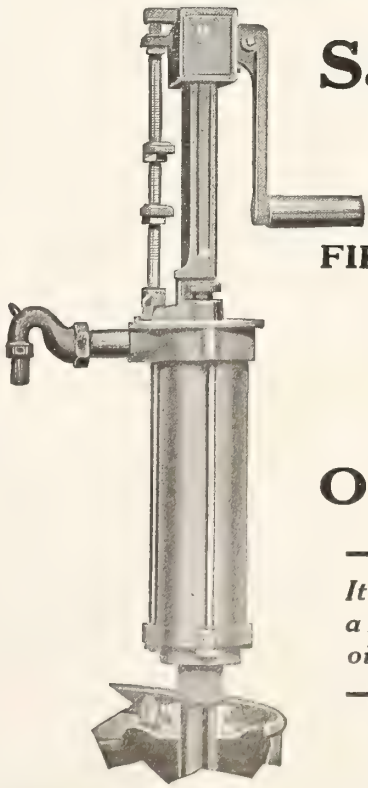
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Save Oil
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Canadian Mathews Gravity Carrier Co., Ltd.

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Woollen Manufacturers

Canadian Woollen Manufacturers' Association Held its Annual Meeting in Toronto in June

The general annual meeting of the Canadian Woollen Manufacturers Association was held in Toronto on June 17th, when the establishment by the province in co-operation with manufacturers, of a textile college for the training of Canadians in the more scientific phases of the textile industry received considerable attention. Upwards of fifty members of the Association were present from various parts of Canada and a keen interest in the proposition was evidenced. The proposal has been in the hands of a competent committee for some time and the manufacturers at the meeting expressed themselves as heartily in favor of the idea, the need for fully trained operatives being recognized.

Reports for the past year showed that business had been satisfactory and that a considerable amount of export business had been carried on. In this connection it was stated that Secretary Fred H. Yapp was now in Europe in connection with negotiations for a large amount of overseas business and several extensive orders are pending at the present time. The meeting was preceded by a luncheon, presided over by Mr. Richard Thompson, president, at which Mr. J. S. McKinnon, president of the Canadian Manufacturers Association, and Dr. F. Torrance delivered addresses.

The following officers were elected: President, Mr. Richard Thompson, Carleton Place (re-elected); Vice-President, Mr. Harold G. Smith, Hamilton; Executive: Messrs. D. N. Panabaker, Hespeler; H. Barrett, Paris, Ont.; A. H. Saul, Mitchell; T. A. Burns, Dunnville; C. W. Bates, Carleton Place; W. W. Thompson, Toronto; James Moodie, Hamilton; George A. Dobbie, Galt; C. Gordon Cockshutt, Brantford; Thos. Hepburn, Preston, and K. W. Harvey, Woodstock.

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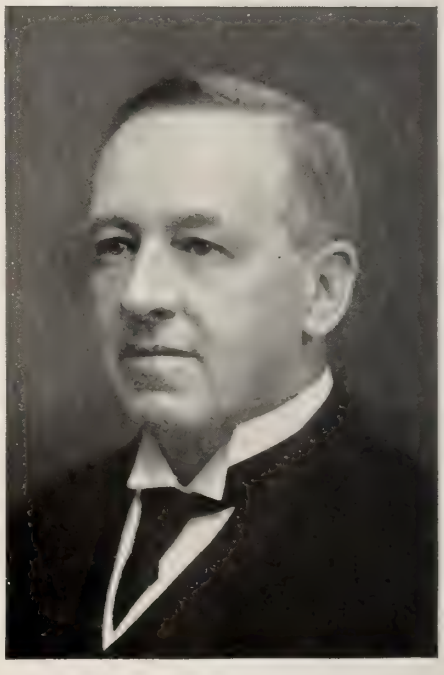
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Grocers' Sundries
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Also Toys, Novelties, Tags and Advertising Signs

Well packed is half sold
Make your containers advertise you

Office and Works :
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Steel Co. of Canada, Limited, Hamilton

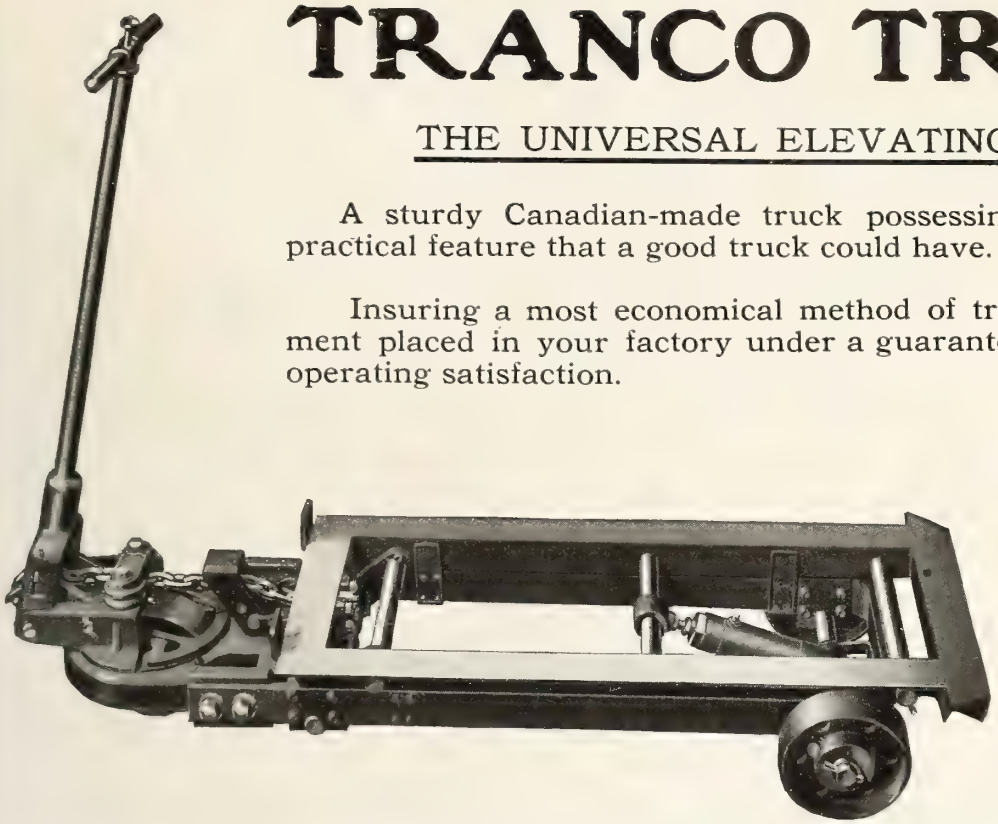
Chairman 1920-21, Commercial Intelligence Committee

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THE UNIVERSAL ELEVATING TRUCK

A sturdy Canadian-made truck possessing every sound and practical feature that a good truck could have.

Insuring a most economical method of trucking, with equipment placed in your factory under a guarantee to give complete operating satisfaction.



A complete range of sizes and load capacities.

CHAPMAN DOUBLE BALL BEARING CO.
of Canada, Limited
347 Sorauren Ave.
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There is no low or medium Grade

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THE PURE WOOL
UNDERCLOTHING
THAT WILL NOT SHRINK



Every "Ceetee" Garment is knitted on special machines—the only machine of their kind in Canada making underwear. Each garment is shaped in the process of knitting (not cut) to fit the human form. The wearing parts are reinforced — the selvage joins are then knitted together — not sewn as ordinary underwear; thus there are no thick or rough seams.

Nothing but the finest, cleanest and purest Australian Merino Wool is used. Finally every garment goes through our special process, that enables us to guarantee ***it not to shrink.***

You cannot buy a low-grade garment bearing the famous "Ceetee" Sheep trademark. "Turnbull's" Underwear is sold by the leading dealers for men, women and children in all sizes.

THE C. TURNBULL COMPANY OF GALT, Limited

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Makers of High Quality Underclothing for over 60 years

Gifts that Endure.

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RICH CUT GLASS

Manufactured by

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Smelters and Refiners of Cobalt Ores

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The Fuel Problem

How a Saving May be Effected Through Increased Use of Mechanical Stokers

An aggressive campaign, having in view the reduction of Canada's coal bill, is being launched by the Under-Feed Stoker Co. of Canada, Limited, formerly the Jones Underfeed Stoker Co., Limited. It is pointed out by this company that the annual consumption of bituminous coal in Canada in leading industries and in public utility plants approximates 7,000,000 tons. Of this 1,000,000 tons, or one-seventh, it is contended, could be saved by the application of scientific combustion methods. The adoption of such methods would not only save coal but would release 20,000 coal cars for other service.

Just how coal can be saved by the installation of stokers is illustrated by some figures applied to a boiler plant consisting of six 250 h.p. boilers. Assuming that five boilers are operated for 24 hours a day, 300 days a year, with two shifts of 12 hours, labor costing 50 cents an hour and coal $6.00 a ton, the annual cost of hand-firing works out at $139,500; that of stoker firing at $120,250. This is a cash saving of $19,250, but there is also an increased plant capacity of from 50 to 100 per cent., while cheaper grades of coal may be utilized.

A reorganization of the business of the Jones Underfeed Stoker Company, Limited, has recently been effected, which will serve to emphasize more completely the Canadian character of this industry. Hereafter the Canadian end of the business will be known as the Underfeed Stoker Co. of Canada, Limited. Mr. Lloyd Harris, who is also president of the Underfeed Stoker Co. of America, becomes president; Mr. S. A. Armstrong is vice-president and managing-director of both companies, and Mr. James L. Ross, vice-president and secretary of both companies. The directors include T. A. Russell, A. W. Holmested, H. J. Fuller and David Fasken. The Jones Underfeed Stoker Co., Limited, have carried on business in Canada for the past twenty years and the new development is in line with the rapid expansion of the business. Some exceedingly effective publicity on the part of the new company is being commenced in the current issue of this publication, to which the attention of readers is specially directed.

Paper Box Makers

Annual Convention of Canadian Paper Box Manufacturers' Association Held in Quebec

The annual convention of the Canadian Paper Box Manufacturers' Association was held at the Chateau Frontenac, P.Q., on June 21 and 22, with about sixty delegates present. A number of valuable addresses were delivered including the following: "How Montreal is solving the Cost Problem," by C. N. Moisan, Standard Paper Box Co., Limited, Montreal; "The Problems of the Metropolitan Paper Box Manufacturers' Association," by H. E. Roden, New York; "Popularizing the Cardboard Carton," by Charles P. Wellman, National Packing Machinery Co., Boston; "Demonstration of Cost of a Men's Shoe Box," by F. W. Fisher, F. W. Fisher & Co., Limited; "The Utilization of the Association to increase Factory Efficiency," by D. H. McDermid, Somerville Paper Box Co.; "L'Entente Cordiale," by L. J. Amyot, Quebec Paper Box Co.; "Costs of a Folding Box," by J. B. Lawrason, Lawrason-Doughty Co., Toronto.

The following officers were elected: President, C. T. Reid, Chas. Reid & Co., Hamilton; vice-president, C. N. Moisan,

HYDRAULIC TURBINES AND PUMPS

Our shops are equipped for building TURBINES of the largest sizes and high speed PUMPS of large capacity for medium and low heads. Two turbines of 20,000 H.P. are now under construction.

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of high speed News Machines and other Paper Machines of both Fourdrinier and Cylinder types.

DOMINION ENGINEERING WORKS, LIMITED
MONTREAL, QUE.
Canadian Builders of I. P. MORRIS HYDRAULIC MACHINERY
UNDER ARRANGEMENT WITH
The Wm. Cramp & Sons, Ship and Engine Building Company

MACHINE SCREWS

COPPER BELT RIVETS AND BURRS

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COPPERED IRON BELT RIVETS AND BURRS

½-lb Packages. Neatly Labelled.
All Sizes in Stock.

THE STOWELL SCREW CO., LIMITED
290 St. Paul Street West, Montreal, Que.

Marine and Machinery

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ABATTOIR AND PACKING HOUSE MACHINERY AND SUPPLIES.

SPECIAL MACHINERY AND REPAIRS.

TOOLS, GEARS, CHAINS, MINING AND CONTRACTOR'S TOOLS.

THE JOHN WHITFIELD CO.
LIMITED
33 Sherbourne Street
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Established 1874



M&S

The Plug with the Hotter Spark

The ball point of the "M&S" plug creates a larger and hotter spark, causing more complete combustion. This hot spark will give your car new life and more power.

The three-in-one terminal is adapted to any style ignition wiring. The high-grade chemically glazed porcelains are interchangeable—one porcelain fits all plugs.

No.	Models
500—	½" Standard
501—	⅞" Standard
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503—	⅞" Long with Chevrolet Terminal
506—	1½" Long
504—	Regular Porcelain
505—	Chevrolet Porcelain

Dealers—The "M&S" plug is standard equipment on the new Overland "4". Ask your jobber for them.

MACHINE & STAMPING CO., Ltd.,
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Commercial Dept.
Russell Motor Car Co., Ltd.,
26

Standard Paper Box Co., Limited, Montreal; secretary-treasurer, S. J. Frame, Toronto; advisory committee, J. B. Lawrason, Lawrason-Doughty Co., Toronto; J. H. Lefebvre, King Paper Box Co., Montreal; B. Sproule, Collett-Sproule, Ltd., Toronto; W. P. Bennett, Rudd Paper Box Co., Ltd., Toronto.

Workmen's Compensation

Industrial Accidents More Numerous in Ontario During the First Half of Year

There were 25,940 accidents reported to the Workmen's Compensation Board of Ontario during the first half of 1920, as compared with 19,811 in the first half of 1919; the fatal cases were fewer, being 211 as against 215.

The compensation and medical aid awarded during the first half of 1920 totalled $2,451,912.82; during the first half of 1919 the total was $1,846,509.11.

The first half of 1919 was the lean period of industrial activity, the last half showing much larger figures, but not so large as the figures for the half-year just closed. Over 500 cheques per day are now being issued by the Board for compensation and medical aid.

June was the high month for accidents reported, averaging 183 per day, 36 being fatal.

The increased scale of compensation provided for at the last session of the Ontario Legislature is now in effect. For accidents happening since 1st July, workmen are to receive two-thirds of their average earnings instead of 55 per cent., and the minimum is to be $12.50 a week or the total average earnings if these are less than $12.50.

Dating from 1st July widows are to receive $40 a month for themselves and $10 for each child under 16, and orphan children are to receive $15 a month, provided the total in any case does not exceed two-thirds of the workmen's aver-any case does not exceed two-thirds of the workmen's average earnings. The cheques now going out are partly on the old scale and partly on the new, adjustment having to be made where the pension period covers part of both months. In accidents happening since 1st July the widow is also to receive a lump sum of $100, and workmen requiring them are also to receive artificial members or other apparatus necessary as a result of the accident, and to have these kept in repair for one year.

Unique Advertising

The Canadian Car & Foundry Co., Limited, Montreal, send out a set of twelve blotters, which have the merit of attracting attention and developing interest in the product of the company. Starting with scenes in which prehistoric man is shown solving the engineering problems of his day, the transportation idea is carried along through imaginative pictures down to the present day and, in fact, beyond. Some of the products of the company are illustrated and the series closes with the gyroscopic railway travelling the air.

The Canadian Steel Foundries, Limited, Montreal and Welland, have a somewhat similar series of blotters, illustrating processes of manufacture as carried through by a troop of Teddy bears. It is a clever way of directing attention to the work done in their plants. H. W. Hartnell is the artist responsible for both series.

The Elder Dempster Co., Ltd., announce that their next sailing from Montreal for South African ports will be the steamship *New Mexico* about July 15th, and *New Brooklyn* about July 30th. These steamers will call at Cape Town, Algoa Bay, East London, Durban and Delagoa Bay in the order named.

Special Belts for Woodworking Metal and Textile Machinery

Motor Fan Belts



Lace Leather Mechanical Leathers of every Description

Solid Woven Cotton Belting

Manufactured by

McARTHUR BELTINGS, LTD.

Factory: BROCKVILLE, ONT.

MONTREAL, Que.
Geo. F. Foss Mchy. & Supply Co.
305 St. James Street

Stocks at:
TORONTO, Ont.
Garlock & Walker Mchy. Co.
32 Front Street

WINNIPEG, Man.
Plewes, Ltd.
197 Princess Street

Do you need special work clothing for your employes?

Like some others, maybe you have thought of us as manufacturers of Men's Overalls, Allovers, and Work Gloves exclusively. The fact is that that represents but a part of our business, albeit a very important part. We also make to order:

—Work Clothing for special jobs,
—Outfits for Express Messengers and Transport Workers, and
—Hospital Coats.

Name your need and we'll meet it. We'll supply you with garments, sound, well-made, good-looking, at prices from which the sting has been removed. Simply let us have your specifications and we'll tell you what time you may expect the finished goods.

Carhartt Work Clothes

are made to order by the manufacturers of
Carhartt Overalls, Allovers and Work Gloves.

HAMILTON CARHARTT COTTON MILLS LIMITED
TORONTO MONTREAL WINNIPEG VANCOUVER



"GENUINE OAK"

LEATHER BELTING

"D.K."

BALATA BELTING

Guaranteed to Give Satisfaction

D. K. McLAREN LIMITED

TORONTO MONTREAL ST. JOHN, N.B

849 Beatty Street, VANCOUVER

GOODHUE BELTING

"Extra"

"Standard"

"Acme Waterproof"

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Agents for the Island of Montreal: STANDARD MACHINERY & SUPPLIES, LTD. 263 Notre Dame St., Montreal, Que.

Labor Supervisors

Spanish River Pulp & Paper Mills Undertake an Important Development

In the carrying out of their industrial relations plan, the Spanish River Pulp & Paper Mills have recently appointed three labor supervisors, one for each of their mills. The duties and functions of these labor supervisors are set forth as follows:

"The Labor Supervisor will be assistant to the General Superintendent in all labor matters which have to do with our employees, their work and the general conditions which surround them in their work. The Labor Supervisor will work in close co-operation with the Secretary of Industrial Relations, and, together with the General Superintendent, the manager and committees, they will develop the various plans which we have in mind for the improvement of conditions in our mills.

Deals With Many Subjects

"The subjects with which the Labor Supervisor will have to deal are varied. All which are mentioned here will not at first go into effect, but when the logical time comes and there is a natural demand for the introduction of the plans, they will be duly set in motion.

"A policy of group insurance was taken out February 21st, 1920, by the Spanish River Pulp & Paper Mills, Ltd., with the Metropolitan Life Insurance Company, covering all employees in mills and offices and on the permanent payroll of the woods department who have worked for the company three months or over. The details in connection with group insurance in the mills will be in the hands of the Labor Supervisor. It will be his duty to see to it that all insurance records are kept up to date in every respect. The best method of keeping insurance records for Spanish River will be worked out between the Labor Supervisor and the Secretary, Department of Industrial Relations.

"The Labor Supervisor will keep an accurate index of all employees, showing length of service. From this index he will make up a monthly list of employees entitled to vacation with pay, showing length of vacation to be granted. Any adjustments having to do with vacations will be made by the Labor Supervisor with the foremen of the various departments. Men desiring vacations will notify foremen as to preference of date, etc. The foreman will arrange for the granting of the vacation, on prescribed forms. The details of this plan will be in the hands of the Labor Supervisor.

Keeps Service Button Records

"The Labor Supervisor will keep service button records and will make bi-monthly reports to the Department of Industrial Relations. The Labor Supervisor will make all arrangements for giving out service buttons and for long service gatherings in co-operation with the Department of Industrial Relations.

"The Labor Supervisor will be in charge of all safety and first aid work in the mill. He will have a committee to work with him composed of employees chosen from each department. The Labor Supervisor will make weekly reports to the Department of Industrial Relations on safety work, first aid and accidents, and will in every way promote safety in the plant.

"All new men employed by the company will pass through the Labor Supervisor's office. All men applying for work will apply at the office of the Labor Supervisor. He will be familiar with all departments of the mill, and foremen desiring help will notify him of vacancies, and his duties will be to fill vacancies in so far as he is able."



Cut of 60-inch "Extra" Double Belt
Made by The J. C. McLaren Belting Co., Limited.

WE ARE HEADQUARTERS FOR ALL KINDS OF

BELTING
LACE LEATHER
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Industrial Oxygen

Methods of Manufacture May Differ but Resultant Product, When Properly Made, Should be Equally Satisfactory

A good deal of space has recently been devoted by certain Canadian technical publications to a discussion of the relative merits of industrial oxygen prepared by the electrolytic and liquid air methods. It may help consumers who are puzzled by the controversy to read the following extract from an article on oxygen appearing in the Bulletin of the Department of Chemistry of the Pennsylvania State College (1917), by Professor Geo. Gilbert Pond:

"Industrial oxygen, compressed in cylinders, is commonly guaranteed to be ninety-eight per cent. pure. The manufacturer usually claims, and probably rightly, that the purity of commercial oxygen is greater than the guarantee would indicate.

"The character of the impurity is perhaps of greater consequence than its exact amount, and the character very naturally varies with the method of preparation. Electrolytic oxygen contains as impurity chiefly hydrogen, with small quantities of nitrogen and carbon dioxide. Liquid air oxygen very naturally has for its impurity principally nitrogen. These impurities, if not kept down to very small dimensions, may cause more or less trouble according to the purposes for which the oxygen is employed. It is the purpose of this paper to consider oxygen only in relation to oxy-acetylene welding and cutting. Nitrogen, being an inert gas, can do no harm to the welding process except that it displaces so much oxygen, being in that sense a dilutent. Hydrogen requires, to be sure, one-half its own volume of oxygen for combustion under ordinary circumstances, but, when led into the oxy-acetylene flame, at some six thousand degrees Fahrenheit, it cannot burn, because this temperature is higher than the dissociation point of water vapor. Hydrogen is as inert as nitrogen under these circumstances and can add nothing whatever to the flame temperature.

"Commercial practice has now brought oxygen to a high degree of purity; the guarantees of reliable manufacturers being on a ninety-eight per cent. basis. Experience has shown that with oxygen of this purity, the best work can be accomplished. The fine distinctions which are drawn in commercial arguments after guaranteed purity is reached may have some theoretical basis, but in practice do not appear of any measurable importance. As there is no possibility of the user analyzing every cylinder and as by whatever process oxygen is made wide variations may occur, the best advice that can be given is to buy of those companies whose technical staff and established reputation make sure the uniform high purity of their guaranteed product."

Other questions dealing with the advantages of gas obtained from one method of manufacture over that of another have also been dealt with. Two of the most common being—

(*a*) That electrolytic oxygen invariably contains, notwithstanding the utmost precaution in its purification, certain traces of soda, and even potash, which are injurious to the piping and internal parts of the apparatus by which they are consumed (as in oxy-acetylene welding);

(*b*) That oxygen extracted from the air by liquefaction contained a certain percentage of argon, another inert gas.

While it is almost impossible to remove completely all traces of soda from electrolytic oxygen, it is also a fact that the manufacturers of oxygen regard argon as too valuable a product to be wasted. It is carefully extracted from the oxygen and sold to electric lamp manufacturers; therefore, the oxygen manufactured by the liquefaction of air, would be as commercially pure as electrolytic oxygen.

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1 7½ hp. C.G.E., 1200 rev., 220 volt, base, starter N.V.
2 5 hp. C.G.E., 1800 rev., 550 volt.

25 Cycle, 3 Phase, 220 volts.

1 10 hp., 1500 rev., T.H.E., with starter N.V. and base.
1 15 hp., 750 rev., rewound, with starter N.V. and base.
1 25 hp. C.G.E., 750 rev., with starter N.V. and base.
1 3 hp. C.G.E., 1500 rev., rewound.
1 1 hp. C.G.E., 750 rev.
2 1 hp. Westinghouse, 1500 rev.
3 1 hp. T.H.E., 1500 rev.
1 2 hp. Westinghouse, 1500 rev.
1 10 hp. Wand W., 1500 rev., base and starter N.V.

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Paper Imports Prohibited

French Government Decree Prohibits Importation of Newsprint and Paper Pulp

A cablegram to the Department of Commerce, Washington, from U.S. Commercial Attache Huntington, Paris, June 21, 1920, states that a French decree of June 16, 1920, published June 19, prohibits from the date of publication the importation into France and Algeria of all newsprint paper and wood pulp for the manufacture of newsprint paper, except under special license from the Minister of Finance. Goods en route to France or Algeria or declared at warehouses before the publication of the decree are not subject to prohibition.

A New Appointment

Mr. George E. Bunting Goes to Australia for Canadian Government Merchant Marine

Mr. George E. Bunting has been appointed Australasian manager of the Canadian Government Merchant Marine, Limited. Mr. Bunting began in the transportation business with the Grand Trunk when nineteen years of age. Later he was with the Lehigh Valley at Buffalo, and afterwards with the Canada Atlantic Railway at Ottawa. He became travelling freight agent for the Allan Steamship Company when the Canada Atlantic Railway was absorbed into the Grand Trunk System, and in 1913 was promoted to the General Agency of the Allan Steamship Co. in Chicago, where he remained until 1917.

When the "National" Merchant Marine was organized, Mr. Bunting was made General Agent for Ontario. Last December he was sent to Australia and New Zealand to organize agencies for the Canadian Government Merchant Marine, his appointment as Australasian Manager following his work in that connection.



George E. Bunting

Appointed Australasian Manager, Canadian Government Merchant Marine

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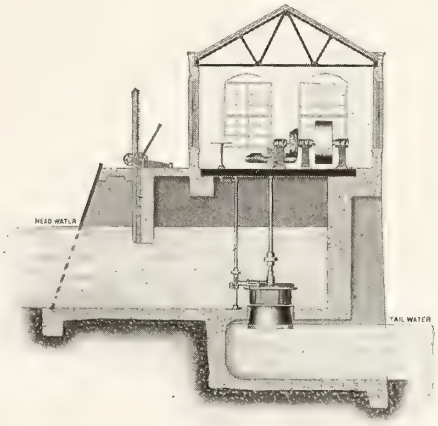
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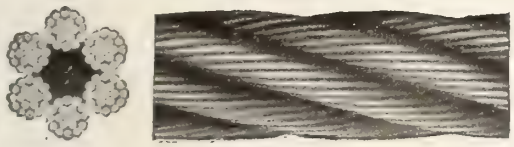
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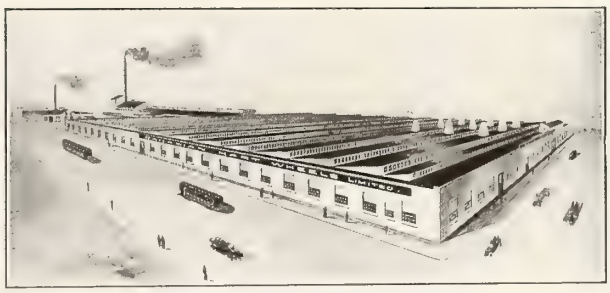
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Book Reviews

The Causes of High Prices

A comprehensive study of the causes of high prices. By Halbert P. Gillette. Chicago: Engineering and Contracting Publishing Co. 5 cents per copy. $5.00 per 100 copies.

This is an extremely interesting and thought-provoking booklet by the editor of *Engineering and Contracting*. It aims to answer twenty questions, which are troubling not a few business men at the present time, such as "When will prices begin to drop? How rapidly will they drop? How far will they drop? Is it wise to lay in a large stock of goods or supplies now? Is it wise to construct buildings now?"

Mr. Gillette has worked out a clever formula, which he substantiates by many pages of proof. His formula, in brief, is this: The wholesale index price for any given year varies directly with the total amount of currency in circulation and with the average number of times it is turned over annually, but it varies inversely with the total population and the per capita efficiency of production.

The conclusions arrived at are instructive and, based on the argument advanced, are evidently pretty sound. The index price for 1919 was 212. Mr. Gillette predicts that the limit of decline for several years will not exceed 20 per cent. 1921, he says, will have a price level of fully 175. Any commodities that can be bought at not much more than 75 per cent. above the pre-war level will be bought at a reasonably low price and this will hold true for many years to come. As for construction costs, Mr. Gillette deduces that it will be futile to postpone construction of any kind in the hope of lower costs.

The booklet is well worth a study by those who are interested in the probable trend of prices. Whether the formula given is infallible or not remains to be seen; it is at least plausible.

Labor Organization in Canada

Labor Organization in Canada. Ninth Annual Report. Ottawa: The Department of Labor.

The ninth annual report on labor organization in Canada, containing statistics, etc., for the calendar year 1919, has been issued by the Department of Labor. The report deals with the advent of the One Big Union, and also gives a review of the progress of the National Catholic Unions in the Province of Quebec. Notwithstanding these two forces, the international organizations have made a very substantial gain in their following, while the non-international bodies and independent units show losses. The figures given in the report show that trade union membership in the Dominion has reached the highest point recorded since the department commenced the publication of these annual reports in 1911, the total reported membership for all classes of labor bodies in Canada at the close of the year 1919 being 378,047. There are in all 2,847 local branch unions in the Dominion, of which 2,309 are affiliates of international organizations, comprising 260,247 members, an increase over 1918 of 412 branches and 58,815 members; 325 local branches, with 33,372 members, are connected with what are termed non-international bodies, these figures showing a loss of seven branches and of 4,556 members; 29 are independent units, a decrease of 16, and the reported membership was 1,249 less than that reported in 1918; the National Catholic Unions number 83, comprising a membership of 35,000; the One Big Union reported 101 units with a membership of 41,150. These figures show a gain of 573 in local branches of all classes of labor bodies

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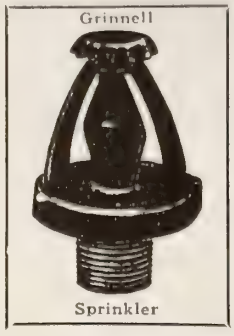
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operating in Canada, and the remarkable increase in membership of 129,160. The membership of all classes of organized labor in Canala, as reported to the department for the past nine years, has been as follows:

1911	133,132	1916	160,407
1912	160,120	1917	204,630
1913	175,799	1918	248,887
1914	166,163	1919	378,047
1915	143,343		

The report follows closely along the lines of earlier reports on labor organization in Canada, the various phases of the plan of organization which has been developed being given due considertion.

Chapters dealing with the advent of the One Big Union and the National Catholic Union movement in the Province of Quebec are discussed, as are also the activities of the Industrial Workers of the World, and other important incidents in labor matters which have occurred during the year 1919.

The report serves as a directory of trade unions for the Dominion for 1920, containing, as it does, particulars not only of every known local trade union in Canada (including branches of international, non-international, independent, National Catholic and One Big Union bodies), but also a list of all central organizing unions, together with the names and addresses of the chief executive officers.

More Fine Color Printing

In keeping with their intention to emphasize the possibilities of fine color printing, Rous & Mann, Limited, Toronto, sent out another folder, containing two striking examples adapted from the work of two Canadian artists. These are illustrative of the four-color process, which gives an astonishingly exact reproduction of the originals. One plate depicts "A Nova Scotian Fishing Village," by A. Y. Jackson, R.C.A., and the other a sketch by J. W. Beatty, R.C.A. Both lost of the atmosphere that each artist has created. As illustrations of what the printing art can accomplish, they are are fine pictures, and, in the reproduction, nothing has been most illuminating.

Dyehouse Ventilation

The Buffalo Forge Company and their Canadian subsidiary, the Canadian Blower & Forge Co., Limited, Kitchener, have issued Catalogue No. 721, which describes, with several illustrations, their dye house apparatus. These companies have made a special study of the problems presented by the incessant dripping of moisture from the roofs of dye houses, and in the booklet they give the result of their experiments. The photographs give telling evidence of their success. The booklet is worth the attention of all manufacturers who operate dye houses.

Engineering Standards

The Secretary of the Canadian Engineering Standards Association, Mr. R. J. Durley, announces that a stock of a number of the most important publications of the British Engineering Standards Association has now been received and is available for distribution. These are priced principally at 25 cents each and are procurable from Mr. Durley at Room 112, West Block, Ottawa. A list of the publications in stock will doubtless be supplied on request.



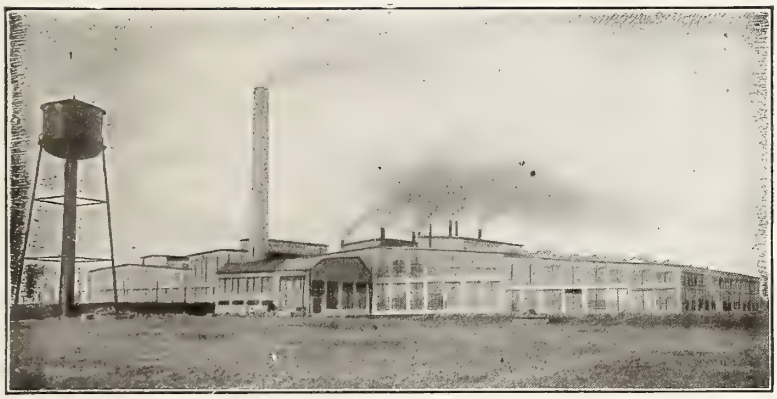
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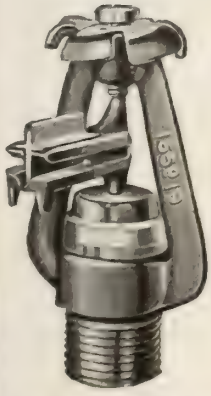
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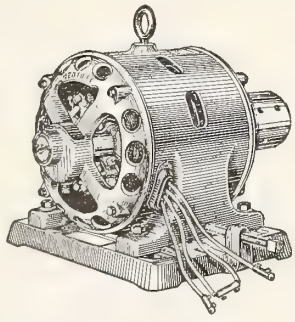


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New Excise Taxes

Tariff Department has Issued Revised Circular Bringing the Subject to Date

The Tariff Department of the Association has prepared a revised circular dealing with the new Excise Taxes. This circular, which cancels previous circulars issued by the Association, contains the complete text of the Bill, rulings received to date, and general information respecting regulations issued by the Department of Customs and Inland Revenue. This circular is dated July 10th, and a copy has been mailed to each member of the Association.

Any subsequent changes in the operation or application of these taxes will be reported from time to time in INDUSTRIAL CANADA.

New Biscuit Plant

North-West Biscuit Company, Limited, are Erecting a Four-oven Plant at Edmonton

A large new biscuit manufacturing factory is at present under erection by the North-West Biscuit Co., Limited, Edmonton. It is a building of reinforced steel and concrete construction, four storeys above the ground, 105 x 112 feet in size. The estimated cost of plant and equipment complete is $400,000, and the building will be ready for occupancy late this



The North-West Biscuit Co.'s building under erection at Edmonton

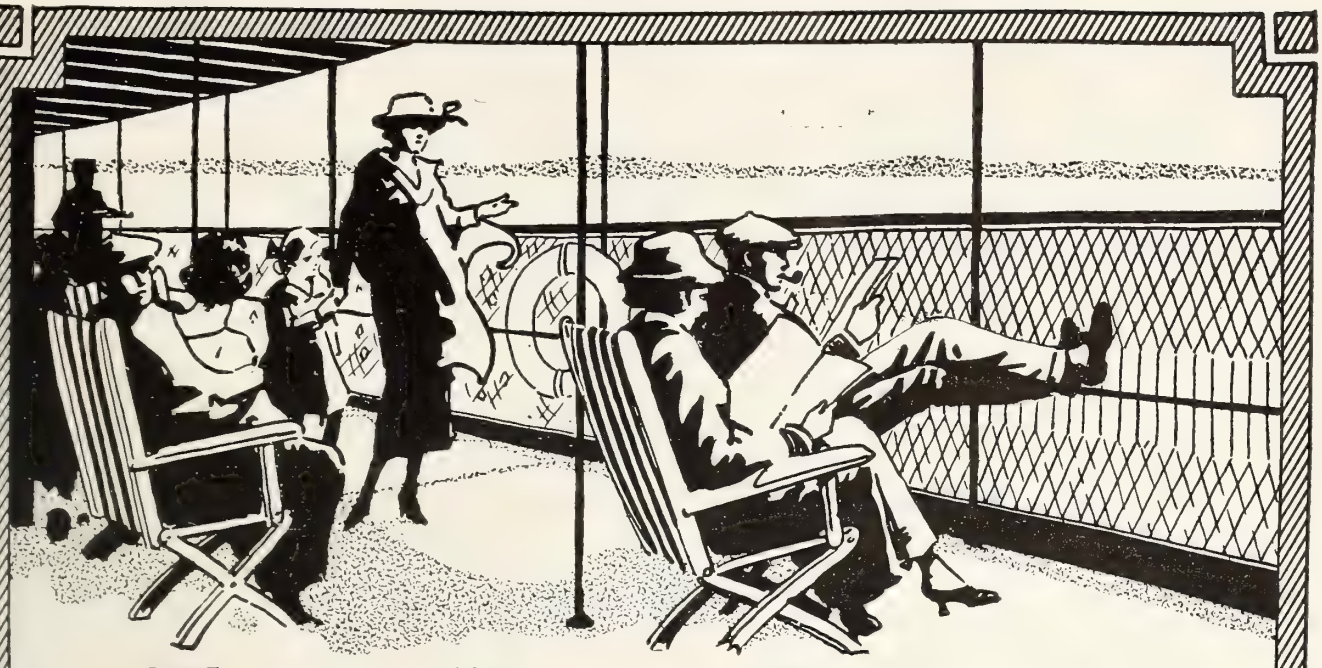
fall, or possibly the beginning of next year. It will be used exclusively for the manufacture of biscuit and will double the company's present output, the new plant having four ovens as against two in the old plant. It is believed to be the second largest exclusive biscuit factory in Canada. For the past three or four years the company have been unable to take care of their business in the territory west of Winnipeg, which accounts for putting in an entirely new plant at this time.

Service to Martinique

Canadian Government Merchant Marine Inaugurate Line to the Windward Islands

The Canadian Government Merchant Marine have been solicited to establish a service to Martinique and now announce their intention of initiating a tentative service from Montreal to this point: the S.S. *Canadian Banner*, or a substitute vessel sailing about the end of this month.

The possibility of this service ultimately being of a permanent nature, and regular sailings established, is dependent upon the tonnage offering.



For a "Great" Vacation

Try the Great Lakes Trip by Canadian Pacific Steamer. For when the mercury is playing around in the upper eighties, and you wish Henry Ford would invent a self-refrigerating collar---do you ever stop to remember that the temperature of Lake Superior ***never rises above 40 degrees?***

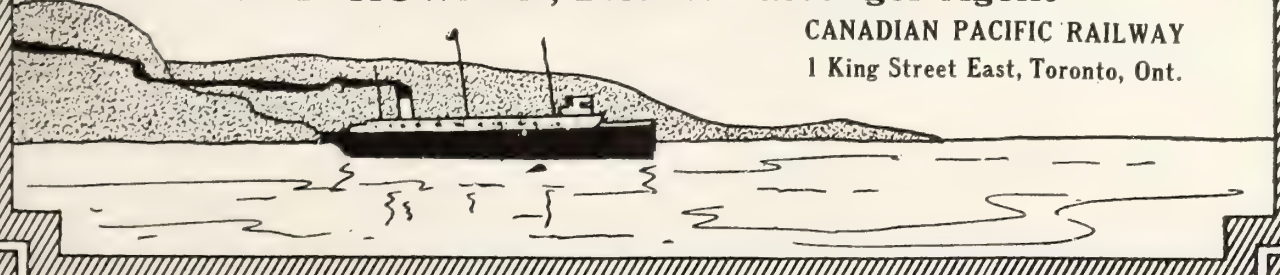
What if you don't spare the time for a long holiday? The Canadian Pacific Railway's Clyde-built steamships make a five-day trip from Port McNicoll to Fort William and back, during which you can be as cool as an Eskimo and as comfortable as a clubman.

Roomy cabins, the best of chefs---oh, those broiled Lake Superior whitefish!---tea on deck under the lazy awnings---seagulls against the long, northern sunset---and a breeze from a thousand miles of clean pine woods, on duty twenty-four hours in the day.

Then---if you find you've got more time than you counted on---how about a week on the Nipigon River, forty miles from Fort William, with guides, canoes and camp-fires and white water under the moon---and more speckled trout than you know what to do with?

How do you get there? That's easy. Phone---write---or see any Canadian Pacific Ticket Agent, or

W. B HOWARD, District Passenger Agent
CANADIAN PACIFIC RAILWAY
1 King Street East, Toronto, Ont.



CANADIAN-AUSTRALASIAN
Royal Mail Line

TO

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Largest, Newest and Best-Equipped Steamers to the SOUTH SEAS

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S.S. "WAIRUNA" (8,900 tons)
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S.S. "WAITEMATA" (10,000 tons)
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For Fares and Sailings apply to all Agents Canadian Pacific Railway and other Railway and Steamship Agents, or to Canadian-Australasian Royal Mail Line, 440 Seymour St., Vancouver, B.C.



An old friend In a new form

MACDONALD'S
"BRITISH CONSOLS"

In Tins containing ⅕lb 50¢

Manufactured by

W. C. MACDONALD, Reg'd
Incorporated
MONTREAL

"The Tobacco with a heart"

Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

DOMESTIC.

453. Cooking Utensils.—A reliable sales' organization would like to get into communication with manufacturers of kitchen hardware and utensils, with a view to marketing their products in Canada. This firm has branches in the larger provinces, and is in a position to give good service.

454. Sales Agency.—A firm of importers and exporters in Montreal have a well-established sales force which is employed in marketing their imports, and desire to get in touch with manufacturers in the vicinity of Toronto and London, who have under consideration the marketing of their output in the district of Montreal. They are prepared in some instances to purchase the goods outright.

FOREIGN.

455. Mexico.—A gentleman born in Mexico, having a good knowledge of the Spanish language as well as good connections in that country, would be interested in visiting manufacturers with a view to representing them in Mexico. He is making a trip through Mexico and South America during the last part of this year, and wishes to undertake commissions from firms. His references are good.

456. India.—An import and export firm has recently been established in Toronto to import raw materials from India. They are in a position to supply Canadian manufacturers direct on account of their connections with native producers in India, and can quote advantageous prices. They are open to receive details of requirements for raw or manufactured products from India, and are also in a position to place the following Canadian products: leather goods, phonographs, iron screws, electrical goods, bleaching powder, magnesia chlorides and agricultural implements.

457. British West Indies and British Guiana.—A gentleman with fourteen years' experience travelling in the British West Indies and British Guiana wishes to get in touch with Canadian manufacturers desiring to trade with those countries.

458. Egypt.—An old-established British Commission House in Egypt is interested in obtaining agencies from Canadian firms for the sale of their goods or for the purchase of products in Egypt.

459. West Indies and Guianas.—An important West Indian firm of importers and exporters who furnish reliable references wish to get in touch with Canadian manufacturers of straw, typewriting and foolscap papers, textiles, suspenders, hosiery, neckwear, boots and shoes.

460. New Zealand.—A firm of manufacturers' representatives in New Zealand desire to make connections with, or secure agencies for New Zealand in the following lines: leather bags, boots and shoes, calcium carbide, serge, tweed and overcoating cloths, fencing wire and galvanized wire, linoleums, all classes of wooden handles, silk, woollen and cotton hosiery, electric pumps, cotton shirts and underwear, hockey sticks and picture mouldings.

461. Lima, Peru.—A firm in Lima, Peru, would like to represent Canadian manufacturers who intend selling their products in that country.

462. Australia.—An Australian firm of importers and exporters having special salesmen for various lines of merchandise and also excellent connections throughout Australia would like to secure catalogues of Canadian firms who are interested in trade with Australia. This firm has excellent references.

463. Montevideo, Uruguay.—A firm in Uruguay, that is in close touch with the market in that country, and in a position to sell goods throughout the Republic, would like to get in touch at once with any Canadian exporters who could furnish quotations on the following commodities: blotting paper, chemicals, metals, textiles, machinery, boots and shoes.

464. Hardware, Building Materials, etc.—A London firm of importers and exporters possessing showrooms and warehouse, are desirous of securing the representation of Canadian manufacturers of hardware of all sorts, building materials, and specialty lines generally.

465 Paints, Varnishes and Domestic Hardware.—A firm about to open an office in London and place travellers throughout the United Kingdom, is desirous of securing agencies, upon a commission basis, of Canadian manufacturers of paints, varnishes and domestic hardware.

466. Chemical Products.—Glasgow and Aberdeen merchant desires to import several chemical products, including particularly: genuine dry carbonate of lead, oxide of cobalt, mica-flake and powder, galena and sulphate of lead, asbestos powder.

467. Tools and Hardware.—A London firm wish to secure the agency of Canadian manufacturers of tools and hardware seeking a United Kingdom connection, notably: twist drills, milling cutters, etc.; spanners, hand; brace and bench drills, hand and bench grinders, hacksaw blades, carpenters' tools.

ELDER DEMPSTER LINES

Canada-South Africa Direct Service

Regular monthly sailings from Montreal in Summer and St. John, N.B., in Winter, calling at Cape Town, Algoa Bay (Port Elizabeth), East London, Port Natal (Durban) and Delagoa Bay in the order named.

Canada-West Africa Direct Service

From Montreal in Summer, and from St. John, N.B., in Winter, monthly sailings for Dakar, Sierra Leone, Seccondee, Accra and Lagos, and other ports on the coast, if sufficient inducement offers.

For Sailings, Rates of Freight and Full Particulars, apply to

ELDER DEMPSTER & CO. LIMITED

133 Board of Trade Building
Montreal

Toronto Agent, S. J. Sharp, 79 Yonge St.
Royal Bank Building

THE

New Zealand Shipping Company Limited

CANADA

TO

Australia and New Zealand

Regular monthly sailings from Montreal in summer and St. John in winter, calling at Auckland, Wellington, Lyttelton and Dunedin (New Zealand) and Melbourne and Sydney (Australia). Sailings 20th of each month.

Through bills of lading issued to all points in Australia, New Zealand, Tasmania and other islands of Oceania.

Marine Insurance effected at rates equal to those given from New York.

For rates and other information apply to

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213 Board of Trade Building, Montreal

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EXPORT **M.P. & B.** IMPORT

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Freight handled to or from any part of the World.

FREIGHT **RATES** QUOTED on application

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Insurance effected Passenger Agents
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Freight and Transport Contractors

MONTREAL
308 St. Nicholas Bldg.
Telephone Main 2521

TORONTO
301 Tyrrell Bldg.
Telephone Main 6559

Cable Address "HEADSHIP" for all offices

468. Hams and Bacon.—An old-established Scotch firm wish to be placed in touch with Canadian packers of hams and bacon.
469. Rubber Wear.—A well-known London firm are open to place orders for autumn delivery for waterproof collars and cuffs; also indiarubber footwear, including boots, rubbers, snowboots, etc., and would like to receive offers and quotations from Canadian manufacturers able to accept orders.
470. Ferro-Silicon.—A North of England company ask to be furnished with the addresses of Canadian manufacturers of ferro-silicon who can fill substantial orders.
471. Silver Novelty Articles, Rolled Gold Novelties.—Wholesale jeweller is willing to represent Canadian manufacturers of novelty articles as designated. Has facilities for covering entire United Kingdom if desired. Has done big business with United States firms; wants to establish genuine, permanent Canadian connections.
472. Molybdenum and Ferro-Molybdenum.—A Lancashire firm, claiming a large connection among users, are desirous of securing the representation of Canadian producers of metallic molybdenum (impurities not to exceed 5 per cent., chiefly iron, phosphorus low), and also ferro-molybdenum (about 50 per cent. Mo., phosphorus low); and they are also interested in molybdenum ores.

Laurentide Insurance Plan

Big Paper Manufacturing Company Puts Into Effect a Comprehensive Scheme

On June 2 the Laurentide Company of Grand Mère, P.Q., announced through their company organ, *The Digester*, a proposed programme of insurance for the benefit of employees. The main features were as follows:

(1) Life insurance in various amounts according to the earnings of the individual.
(2) Sickness and accident insurance with certain amounts payable weekly; the amount being dependent upon your earnings.
(3) The Life Extension Institute's physical examination.
(4) The combined health services of the Metropolitan Life Insurance Company and the Life Extension Institute.

The administration or management of the plan was to be under the direction of a Mutual Benefit Association, to be largely in the hands of employees. For life insurance purposes, the employees would be divided into three groups. Those earning less than $1,500 a year might take a $1,000 policy; those earning from $1,500 to $2,000 a year might take $2,000, and those earning over $2,000 might take a $3,000 policy. For every three years of continued service $100 additional insurance would be added without additional expense.

The accident benefits would not conflict with the Workmen's Compensation Act; that is, they would not cover accidents incurred on the job, but would apply to all accidents occurring outside of work. Sick benefits would be paid as all sick benefits are, regardless of how or where the sickness is incurred, and payments would begin and become payable at the seventh day of illness and be continued as long as the sickness lasts up to 26 weeks.

Cost would be borne half by employees and half by the company. The first group would pay 25 cents per week and draw $10 per week sick and accident benefits; the second group, 50 cents and $20 benefits, and the third group 75 cents and $30 benefits.

By the end of the week in which the announcement was made 1,740 employees had filled out the application blanks. The organization of the Mutual Benefit Association was proceeded with and an executive board and sub-committees were appointed.

Will Visit Canada

Mr. H. C. Hole, the managing director of an old-established firm of manufacturers' agents with a first-class connection in the British Isles, will be in Canada during August. He will be glad if any manufacturers of hardware, woodenware, tools, etc., desiring business in the old country, will communicate with him at the King Edward Hotel, Toronto.

Minister: Hon. W. R. Rollo

Department of Labour
ONTARIO GOVERNMENT

Deputy Minister: W. A. Riddell, Ph.D.

INVESTIGATION AND RESEARCH

The Department is the Provincial centre for investigation and research in matters connected with labour. Pamphlets on vocational opportunities for boys and girls in the industries of the Province are being prepared.

Already issued—
Bulletin on Department and Notion Stores.

Also—
Mothers' Allowances—An Investigation.

ADMINISTRATION OF

1. The Stationary and Hoisting Engineers' Act
2. The Factory, Shop and Office Building Act.
3. The Steam Boiler Act.
4. The Building Trades Protection Act.
5. The Employment Agencies Act.
6. The Bureau of Labour Act.

Ontario Government Employment Bureaus
(Employment Service of Canada)
Use these bureaus to obtain workers for every grade of work

GEO. **McMURRICH** SONS LIMITED
22 TORONTO STREET, TORONTO
EXPORT MARINE IMPORT
INSURANCE
INCLUDING LOSS BY MINES AND STRIKES

CANADA'S SUMMER GIRL



GOES TO . . . . . .

MUSKOKA

LA BAIE DE CHALEUR

PRINCE EDWARD ISLAND

ST. JOHN RIVER VALLEY

NOVA SCOTIA - BY - THE SEA



Via The National Way

-OR-

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QUETICO
MINAKI

OUT OF DOOR

LOWER ST. LAWRENCE AND MARITIME PROVINCES.

QUEBEC AND - NORTHERN ONTARIO.

PRAIRIES, ROCKIES & PACIFIC COAST.

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VANCOUVER WINNIPEG TORONTO
MONTREAL QUEBEC MONCTON

Canadian National Railways

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. Rates for insertion in this department, $4.00 per heading per year (12 insertions).

ABRASIVES
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

ADVERTISING SIGNS
Cross Press & Sign Co., Ltd., Woodstock, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.

AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

AIR LIFT PUMPS
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.

ALKALIES
Brunner, Mond Canada, Limited, Amherstburg, Ont.

ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,

ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.

ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.

ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

ARSENIC
*Deloro Smelting & Refining Co., Limited, Deloro, Ont.

ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.

ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St, Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.

AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.

AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BACON
F. W. Fearman Co., Ltd., Hamilton, Ont.

BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Flashlight
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Storage
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BEARINGS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEEF
F. W. Fearman Co., Ltd., Hamilton, Ont.

BELTING CHAINS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*McArthur Beltings, Limited, Brockville, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha and Rubber Ltd., Toronto, Ont.

BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
*Canadian Salt Co., Ltd., Windsor, Ont.

BLOWERS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.

BOILER GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILERS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co., Ltd., Guelph.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, hot water or steam
Warden King, Ltd., Montreal.

BOILERS, steam
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.

BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.

BOOKLETS
R. G. McLean, Toronto.

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

BOXES, cellular and fibre board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.

BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,

BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.

BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.

BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS ENGRAVERS
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS PLATES
*Tallman Brass & Metal Co., Hamilton, Ont.

*For Display Advertisement see Index, Pages 317, 318

BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS WORK, special
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BRICK
*Interprovincial Pressed Brick Co. of Canada, Limited, Toronto.
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.

BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd. Quebec, Que.

BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.

BRIDGES, Railway and Highway
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.

BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.

BRONZE SHEETS, RODS, PLATES
*Dominion Copper Products Company, Ltd., Montreal.

BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,

BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.

BRUSHES, carbon
*Canadian National Carbon Co., Ltd., Toronto.

BUCKET TANKS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.

BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
*The Barrett Co., Ltd., Toronto and Montreal.

BUNGS, wooden for barrels
Wm. H. White, Ville St. Pierre, Montreal, Que.

BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.

BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.

CABLES, electric light, power, telephone and telegraph
*Northern Electric Company, Limited, Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

CABLES, transmission and telephones
*Northern Electric Company, Limited, Montreal, Que.

CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.

CABLES, wire
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.

CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.

CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.

CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.

CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.

CARBIDE
*Canada Carbide Co., Ltd., Montreal. Que.

CARBONS, electric
*Canadian National Carbon Co., Ltd., Toronto, Ont.

CARBONIC ACID GAS
*Canadian Carbonate Co., Montreal.

CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.

CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CARRIERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.

CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARS
*National Steel Car Co., Ltd., Hamilton, Ont.

CARS, industrial
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.

CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

CASTINGS, aluminum, brass and bronze
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto, Ont.
*Dodge Mfg. Co., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CASTINGS, malleable iron
*Galt Malleable Iron Co., Ltd., Galt, Ont.

CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.

CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.

CAUSTIC SODA
*Canadian Salt Co., Ltd., Windsor.

CELLBOARD
*Adams Cellboard Co., Toronto.

CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Company, Ltd., Toronto, Ont.

CHAIRS
*Office Specialty Mfg. Co., Ltd. Newmarket, Ont.

CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Stratford. Ont.

CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*The Grasselli Chemical Co., Ltd., Toronto, Ont.
*The Nichols Chemical Co., Ltd., Montreal, Que.

CHEMISTS, industrial
*Milton Hersey Co., Montreal.

CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd., Toronto, Ont.

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

CLAM SHELL BUCKETS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CLAY, Ground.
*Interprovincial Brick Co. of Canada, Limited, Toronto.

CLOCKS, time
*International Business Machines Co., Ltd., Toronto.

CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto, Ont.

CLOSET SEATS
*Goderich Organ Co., Goderich, Ont.

CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.

CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto.

CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.

CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.

CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.

COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.

COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

COFFEE
S. H. Ewing & Sons, Montreal.

COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.

COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.

COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.

COLORS
*A. Ramsay & Son Co., Montreal.

COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd Toronto, Ont.

COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.

CONCRETE COATINGS, PAINTS, Etc.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Sturgeons Limited, Toronto.

CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd., Toronto, Ont.

CONDENSERS, Barometic
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.

CONTAINER BOARD—strong container
*Bathurst Lumber Co., Ltd., Bathurst, N.B.

CONTRACTOR'S PLANT
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CONVEYORS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.

COPPER
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.

COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

* For Display Advertisement see Index, Pages 317, 318

COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

CORKS
S. H. Ewing & Sons, Montreal, Que.

CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.

CORRUGATED PAPER BOXES
*Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

CORSETS
Dominion Corset Co., Quebec, Que.

COTTONS
*Montreal Cottons, Ltd., Valleyfield, P.Q.

COTTONADES
Hamilton Cotton Co., Hamilton, Ont.

COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.

COUPLINGS
*Dodge Mfg. Co., Ltd., Toronto.

CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.

CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.

CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.

CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.

CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.

CRUSHERS, Rock and Ore
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

CUPOLAS
*Northern Crane Works, Ltd., Walkerville, Ont.

CUPS, presentation
Standard Silver Co., Toronto, Ont.

CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.

CUTLERY
Standard Silver Co., Toronto, Ont.

CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.

DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.

DENIMS
Hamilton Cotton Co., Hamilton, Ont.

DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.

DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.

DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.

DIES
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.

DISINFECTING APPARATUS
Spramotor Co., London, Ont.

DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.

DREDGES
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

DRESSING, belt
Sadler & Haworth, Montreal, Que.

DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas, Ont.

DRILLS, Square or Hexagon
Globe Engineering Co., Limited. Hamilton, Ont.

DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.

DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.

DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

DRY COLORS
*The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.

DURABLE WIRE ROPE
*The Dominion Wire Rope Co., Ltd., Montreal, Que.

DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.

DYNAMOS
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.

DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.

EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont.

ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.

ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.

ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.

ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.

ELECTRODES, carbon
*Canadian National Carbon Co., Ltd., Toronto, Ont.

ELECTROTYPING
Central Press Agency, Ltd., Toronto.

ELECTRICAL SUPPLIES
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.

ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont.

ELEVATING MACHINERY
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.

ELEVATORS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co. Ltd,, Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.

ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto.
Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.

EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

ENAMEL AND TIN WARE
*McClary Mfg. Co., London, Ont.

ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & R. Weir, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
*Massey-Harris Co., Ltd., Toronto.

ENGINES, gasoline, tractor, plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.

ENGINES, hoisting
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*The Waterous Engine Works Co. Ltd., Brantford, Ont.

ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.

ENGINES, steam plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.

ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.

ENGRAVERS, half-tone
Grip, Ltd., Toronto.

ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.

ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont,

ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.

ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.

ENVELOPES
*Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.

EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.

EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.

FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.

FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.

FANS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

FARM POWER & LIGHT PLANTS
*Northern Electric Company, Limited, Montreal, Que.

FENCING, wire
*C. H. Johnson & Sons, Ltd., Montreal, Que.

FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.

FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.

FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.

FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

FIBRE (vulcanized), sheets, rods, tubes, etc.
The Diamond State Fibre Co. of Canada, Ltd., Toronto.

FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.

FILING CABINETS
*Office Specialty Co., Newmarket, Ont.

FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.

FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.

FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask

FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.

FIRE BRICK, PLASTIC
Beveridge Paper Co., Ltd., Montreal, Que.

FIRE DOOR HARDWARE
*Richard Wilcox Canadian Co., Ltd., London, Ont.

FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.

FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.

FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.

FIRE PROTECTION SYSTEMS
*Canadian Des Moines Steel Co., Limited, Chatham.

FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont.

FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.

FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.

*For Display Advertisement see Index, Pages 317, 318

FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.
FITTINGS, steam
Warden King Ltd., Montreal, Que.
FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.
FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FURNACES
*McClary Mfg. Co., London, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
*S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GAUGES
*Brown Engineering Corporation, Toronto, Ont.
GEARS, cut
*Brown Engineering Corporation, Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GILDING METAL
*Dominion Copper Products Co., Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.
GLUE
Canada Glue Co., Ltd., Brantford, Ont.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.
GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.
GRAPHITE, lubricating
Black Donald Graphite Company, Limited, Calabogie, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDING MACHINERY
*Ford Smith Machine Co., Ltd., Hamilton, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GYPSUM PRODUCTS
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co. Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATERS, WATER FEED
*Mason Regulator & Engineering Co., Ltd., Montreal, Que.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOSE, fire and rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOUSES, factory made
Wm. H. White, Ville St. Pierre, Montreal, Que.
HYDRAULIC TURBINES
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
*The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
INSULATION VULCANIZED FIBRE
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
JACKS
Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
*Caron Bros., Montreal, Que.
JEWELRY, gold-filled
*Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford,, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spence, Ltd. Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

*For Display Advertisement see Index, Pages 317, 318

LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.
LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.
LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto.
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LINK-BELT, Ewart and saw mill riveted
*Canadian Link-Belt Co., Toronto.
LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.
LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto. Ont.
LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.
LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.
LOOSE LEAF SYSTEMS
Copeland-Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.
LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
LUMBER
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.
LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
LUMBER, spruce and pine, cedar railway ties and shingles
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.
LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.
LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.
MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY, Conveying
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.
MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
Canadian Mead Morrison Co., Ltd., Montreal, Que.
J. & R. Weir, Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, pulp mill
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Dominion Engineering Works, Limited, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, roadmaking
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
MACHINERY, transmission
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINES, painting
Spramotor Co., London, Ont.
MAGNESITE
*Canadian Carbonate Co., Montreal, Que.
MALLEABLE IRON CASTINGS
*Galt Malleable Iron Co., Ltd., Galt, Ont.
MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.
MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.
METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.
METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL LATH
*The Pedlar People, Ltd., Oshawa, Ont.
METAL PACKING
*Garlock Packing Co., Hamilton, Ont.
METAL, spinning and stamping
*The Booth Coulter Copper & Brass Co., Ltd., Toronto, Ont.
METAL PROTECTIVE PAINTS
Sturgeons Limited, Toronto.
METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
MILLING CUTTERS
*Pratt & Whitney Co. of Canada, Dundas, Ont.
MILLING MACHINES
*Ford Smith Machine Co., Ltd., Hamilton, Ont.
MILL RIVITED
Canadian Link-Belt Company, Ltd., Toronto, Ont.
MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
*A. R. Clarke & Co., Ltd., Toronto.
MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.
MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.
MONEL METAL
International Nickel Co. of Canada, Ltd., Toronto.
MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MOTION PICTURES
Pathescope of Canada, Limited, Toronto.
MOTOR CARS
*Ford Co. of Canada, Ford, Ont.
MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.
MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.
MOTORS, electric (repairing)
*T. & H. Electric Co., Hamilton.
MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAILS, wire
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.
NICKEL CASTINGS
International Nickel Co. of Canada, Ltd., Toronto.
NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
International Nickel Co. of Canada, Ltd., Toronto.
NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
International Nickel Co. of Canada, Ltd., Toronto.
NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.
OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.
OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.
OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
OILS
*A. Ramsay & Son Co., Montreal, Que.
OIL FILTRATION AND CIRCULATING SYSTEMS
*S. F. Bowser & Co., Toronto, Ont.
OIL STORAGE SYSTEMS, self-measuring
*S. F. Bowser & Co., Toronto, Ont.
OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.
OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*The Imperial Oil Co., Toronto.
OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
ORGANS, reed
Bell Piano & Organ Co., Ltd., Guelph, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto
OXYGEN
*L'Air Liquide Society, Montreal, Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
*Jenkins Bros., Ltd., Montreal, Que.
PAD HOOKS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.

* For Display Advertisement see Index, Pages 317, 318

PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
*A Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.
PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal.
PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.
PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, building
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal.
PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.
PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
PATENTS
Fetherstonhaugh & Co., Toronto.
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.
PATENT LITIGATION
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.
PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.
PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.
PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.
PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.
PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.
PIANO KEYS
The Otto Higel Co., Ltd., Toronto.
PIANO, player actions
The Otto Higel Co., Ltd., Toronto.
PIANOS AND PLAYER PIANOS
Bell Piano & Organ Co., Ltd., Guelph, Ont.
PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.
PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*M. A. Hanna & Co., Toronto.
PINS, society, emblems and badges
*Caron Bros., Montreal, Que.
PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.
PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.
PIPES, culvert
*The Pedlar People, Ltd., Oshawa, Ont.
PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.
PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
PLANING MILLS
G. & J. Esplen, Montreal, Que.
PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
PLOWS
J. Fleury's Sons, Aurora, Ont.
PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
POLISHING MACHINERY
*Ford Smith Machine Co., Ltd., Hamilton, Ont.
PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.
POWER PRESSES
*Hydraulic Machinery Co., Ltd., Montreal, Que.
PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.
PULLEYS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.
PULP, bleached sulphite
*Riordan Sales Co., Ltd., Montreal, Que.
PULP, unbleached sulphite
*Riordan Sales Co., Ltd., Montreal,
PULP, sulphate and sulphite
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
PUMPS, boiler feed
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Dominion Engineering Works, Limited, Montreal, Que.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS, turbine and reciprocating
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
PUNCHES
*Pratt & Whitney Co., Dundas, Ont.
RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.
RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.
RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.
READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.
REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.
RECEPTACLES, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.
REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.
REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.
REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.
REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.
RINGS, gold
*Caron Bros., Montreal, Que.
RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
RODS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.
ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.
ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
ROOFING, ready to lay
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.
ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.
ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.
RUBBER FOOTWEAR
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.
RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Limited, Toronto.
RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
RUBBER MILL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
RUBBER PACKING
*Garlock Packing Co., Hamilton, Ont.
RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.
SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.
SAMPLE CASES
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.
SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.
SALT
*Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.
SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.
SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.
SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.
SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

*For Display Advertisement see Index. Pages 317, 318

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.
SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.
SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.
SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.
SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*National Acme Company, Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.
SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.
SERGES
Rosamond Woollen Co., Almonte, Ont.
SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.
SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.
SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.
SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
SHEETS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
SHINGLES
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
SHINGLE STAINS
Sturgeons, Limited, Toronto.
SHIP BUILDERS
J. & R. Weir, Montreal, Que.
SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.
SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.
SHOE PEGWOOD
O. Chalifour, Quebec, Que.
SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.
SHOOKS
Barchard & Co., Ltd., Montreal.
SIGNAL CELLS
*Canadian National Carbon Co., Ltd., Toronto.
SIGNS, Advertising.
Cross Press & Sign Co., Ltd., Woodstock, Ont.
SILENT CHAIN DRIVES
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
SILVER BULLION
Coniagas Reduction Co., Ltd., St Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
SILVERSMITH
Standard Silver Co., Toronto, Ont
SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.
SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.
SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.
SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
SMOKE-STACKS
Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
SOAPS
J. Barsalou & Co., Ltd., Montreal.
SOAP (soft, oil)
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
SODA ASH
Brunner, Mond Canada, Limited, Amherstburg, Ont.
SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.
SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto
SOIL PIPE
Anthes Foundry, Ltd., Toronto.
SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.
SOLDER, wire and bar
American Can Co., Montreal, and Hamilton.
SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.
SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.
SPECIAL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Globe Engineering Co., Ltd., Hamilton, Ont.
SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
SPINNING AND STAMPING
*Tallman Brass & Metal, Ltd., Hamilton, Ont.
SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.
SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.
SPRAYERS
Spramotor Co., London, Ont.
SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,
SPRING SHACKLE BOLTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
SPROCKET WHEELS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.
STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.
STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.
STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STATIONERY, office
Harris Lithographing Co., Toronto.
STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
STEAM SHOVELS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
STEEL PLATE WORK
Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.
STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.
STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.
STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STEREO TISSUE AND BLOTTINGS
*Beveridge Paper Co., Ltd., Montreal.
STEREOTYPING
Central Press Agency, Toronto.
STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
STORAGE BATTERIES
*Northern Electric Company, Limited, Montreal, Que.
*Prest-O-Lite Company of Canada, Limited, Toronto.
STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.
STOVE POLISH GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.
STOVES AND RANGES
*McClary Mfg. Co., London, Ont.
STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.
STRUCTURAL STEEL WORK
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
SULPHUR BURNERS
*The Hydraulic Machinery Co., Limited, Montreal.
SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.
SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.
TANKS
*Canadian Chicago Bridge & Iron Company, Ltd., Bridgeburg, Ont.
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Toronto Iron Works, Ltd., Toronto.
Wm. H. White, Ville St. Pierre, Montreal, Que.
TANKS, elevated steel
Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*Canadian Des Moines Steel Co., Limited, Chatham.
TANKS, steel storage
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

*For Display Advertisement see Index, Pages 317, 318

Are You Sure Your Electrical Wiring is Safe?

There is but one absolutely safe method of wiring. Install a CONDUIT SYSTEM — it will eliminate all risk of Fire.

"Galvaduct" & "Loricated"
—"Conduits"—

HAVE NO EQUALS

Conduits Company Limited
TORONTO *MONTREAL*

"CARLTON" BRAND
STANDARD ENGLISH

FERRO MANGANESE

78/80% PURE

STOCK AND IMPORT

A. C. LESLIE & CO. LIMITED
560 St. Paul St. West
MONTREAL

THE MASON REGULATOR COMPANY

BOSTON, MASS.



Wishes to call your attention to the fact that

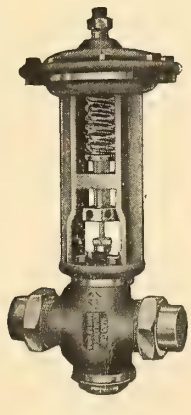
GENUINE · MASON · REDUCING VALVES

(Tell Them by Their Trade Mark)

ARE

MADE IN CANADA

BY



The Mason Regulator & Engineering Co., Limited

(Formerly H. L. PEILER & COMPANY)

MONTREAL AND TORONTO

Works: 135-153 Dagenais Street - - - - (ST. HENRY) MONTREAL

DOMINION TIRES

ARE GOOD TIRES



The RIGHT TIRE for every Car—and the Right INNER TUBE to Fit the Tire

CANADIAN CONSOLIDATED RUBBER CO. LIMITED
DOMINION RUBBER SYSTEM AND ASSOCIATED COMPANIES

For business as well as pleasure—for service and economy, equip your pleasure cars and delivery trucks with DOMINION TIRES.

DOMINION TIRES and ACCESSORIES are distributed through DOMINION RUBBER SYSTEM BRANCHES and sold by the Best Dealers throughout Canada.

For
SAFETY
ECONOMY
CONVENIENCE
use

***WRITE** for Catalog illustrating containers and packing cases for a large variety of manufactured products*

THOMPSON & NORRIS CORRUGATED BOXES

YOUR goods are safer when packed and shipped in Thompson and Norris Corrugated boxes. They cannot be tampered with in transit without the fact becoming at once apparent. They keep out odors and moisture and assure the arrival of your goods in proper condition. They stand up well under rough usage. They come to you in collapsible form, thus taking up much less space in storage. They are sealed with paper instead of being nailed, thus saving time and noise in the shipping room, to say nothing of avoiding possibility of damage to contents. Thompson and Norris Boxes are the best form of packing for an immense variety of products. Let us design a container and shipping case for your goods.

The Thompson and Norris Co. of Canada, Limited

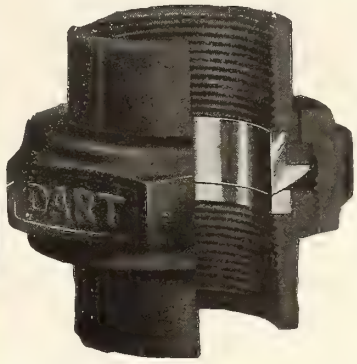
TORONTO, ONT. MONTREAL, QUE.

Home Works: Concord and Prince Streets, Brooklyn, N.Y. Factories also at: Boston, Mass.; Brookville, Ind.; London, Eng.

It Pays to Connect up with Dart Union Pipe Couplings

Bronze to Bronze at The Joint

They are Economical



and Trouble Proof

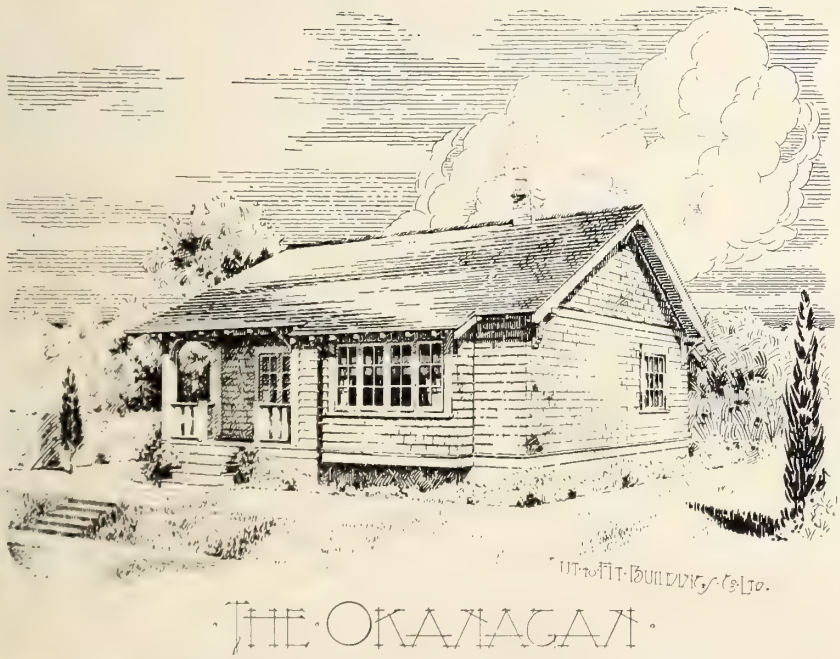
The Joint is Bronze to Bronze both face and seat

There is no deterioration at the point where the connection is made—and the heavy iron parts will not stretch or pull apart.

Make sure your next jobber's order includes Dart Unions.

Dart Union Co., Limited
Toronto, Canada

Kill Bolshevism *by* Erecting Homes



The manufacturer or large employer of labor can solve his labor troubles by providing proper housing accommodation for his employees.

Employees who are comfortably housed are contented employees.

By the CUT-TO-FIT method you eliminate TIME waste and waste of materials—the two main essentials in cost reduction.

If you contemplate building, let us show you our plans, or we will conform to your own plans.

25% SAVED ON BUILDING COST *by* CUT-TO-FIT METHOD

CUT-TO-FIT BUILDINGS COMPANY LIMITED

Head Office, Metropolitan Bldg., Vancouver, B.C. *Factory and Mills, New Westminster, B.C.*

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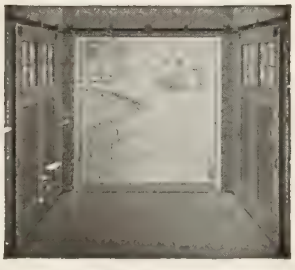


BULLDOG STEEL JOIST HANGERS

They never let go! Stronger than malleable. All sizes and styles for all kinds of work. Save space and time in erection.

GARAGE DOOR HARDWARE OF ALL KINDS FOR ANY PURPOSE

Angle Doors, Parallel Doors, etc. Special jobs receive the prompt attention of our engineering department. Let us know your requirements.





Put Your Trucks on The Ceiling!

The Modern Method of Factory Transportation

A Richards-Wilcox Carrier System---either I-Beam or Trolley---will pay for itself in one year on actual pay-roll saving, not to mention the increased efficiency. Occupies no floor space. Always ready for use. Operates easily, one man can handle 2,500 lbs. Trolley carriers made in sixteen styles and sizes for loads up to 2,500 lbs. For heavier loads use I-Beam Equipment.

Catalogs Upon Request

Richards-Wilcox Canadian Co. Ltd.

AURORA BOSTON NEW YORK CHICAGO London Ontario PHILADELPHIA MINNEAPOLIS SAN. FRANCISCO ST. LOUIS

"A hanger for any door that slides"

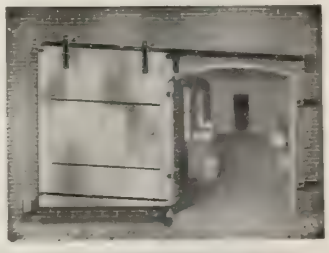
"R-W" TROLLEYS ARE BEST FOR ALL SLIDING DOORS



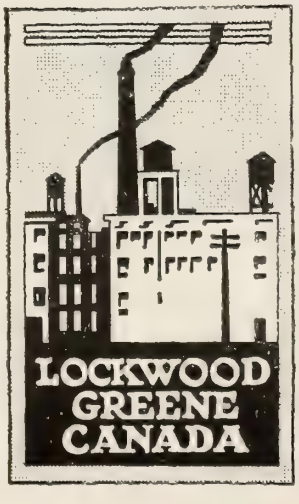
Specified by leading architects and engineers throughout Canada and the United States. "A hanger for any door that slides."

FIRE DOORS AND FIRE DOOR HARDWARE WITH UNDERWRITERS' LABEL

All styles, single or double, sliding or swinging. A fire door with labeled hardware is the surest way to prevent fire from spreading.



Anticipating Difficulties Unknown to YOU



unknown to you, but not to the engineers of LOCKWOOD, GREENE, who can plan your factory for you with an eye to the needs of 1925-1930, and with the accumulated experience and study of many busy years.

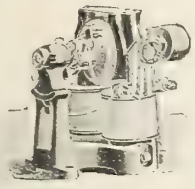
Planning and supervision by Lockwood, Greene means increased productivity of plant, better working conditions, and more efficient organization. Write for booklet "Building with Foresight"

LOCKWOOD, GREENE & CO. OF CANADA LIMITED

285 Beaver Hall Hill, Montreal

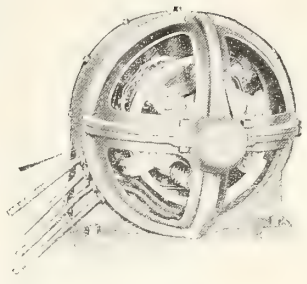
INDUSTRIAL ENGINEERS

Just 32 Years Old



1888

The electrical industry was born in 1888. In that year this Company was founded.



1920

OUR STEADY PROGRESS AND GROWTH SINCE THAT TIME MAY BE ATTRIBUTED IN LARGE PART TO OUR EARLY BELIEF IN THE PRINCIPLE THAT IN SERVING OUR CLIENTS' BEST INTERESTS WE ARE BEST SERVING OUR OWN. WE BUILD MOTORS, GENERATORS, TRANSFORMERS, ETC., ETC.

Canadian Crocker-Wheeler Apparatus and Service are available at all of the N. E. Co. Branches as follows:
Montreal Halifax Ottawa Toronto London
Winnipeg Regina Calgary Vancouver

Northern Electric Company
LIMITED

THE CANADIAN
CROCKER-WHEELER COMPANY
LIMITED
Manufacturers and Electrical Engineers

Head Office and Works:
ST. CATHARINES, ONT.

District Offices:
TORONTO and MONTREAL

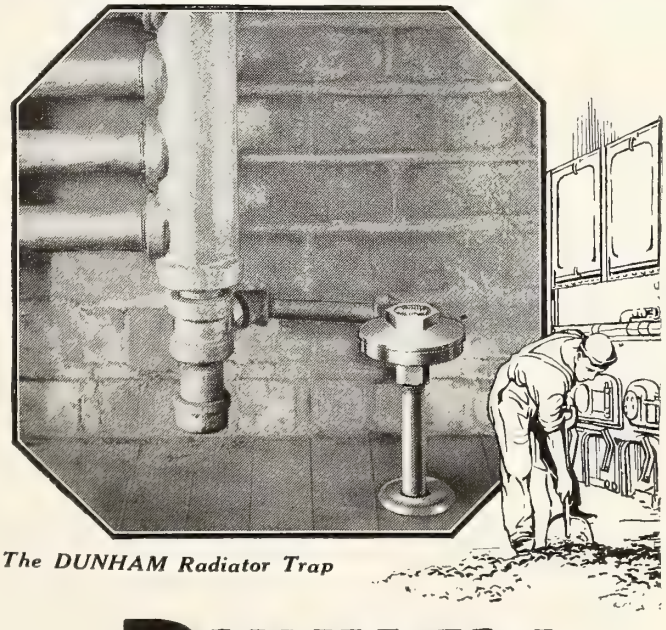
IT SAVES

even where steam is plentiful

Waste is waste wherever you find it. Even where coal is mined it is poor economy to be prodigal with fuel. By the same sign, even where steam is plentiful, it is a waste of fuel to waste the steam.

If, for instance, each radiator can be heated to 100% efficiency at lower steam pressure, and at the same time not let any steam into the return line, then considerably less fuel is needed. You will not need jet water on a Dunhamized Vacuum Heating System.

The Dunham Radiator Trap has some very interesting fuel-saving records to its credit—to say nothing of its ability to keep radiators hot all over. May we send you the facts?



The DUNHAM Radiator Trap

The DUNHAM HEATING SERVICE

MADE IN CANADA

C. A. DUNHAM COMPANY, LIMITED
TORONTO, ONTARIO

HALIFAX VANCOUVER WINNIPEG
OTTAWA MONTREAL CALGARY
LONDON: 64 Regent House. Regent Street, W. 1.

SMALL TOOLS

Pratt & Whitney Adjustable Blade Reamers

These reamers have eccentric relief and can be set to size without regrinding. They are unexcelled for design and simplicity and ease of adjustment.

The eccentrically relieved blades are stronger than others, do not chatter, and produce a smoother hole The hand, shell and fluted chucking reamers have interchangeable nuts, screws and wrenches. The bottom of a hole can readily be faced.

By a simple adjustment of the blades the reamer can easily be set to size without regrinding.

Prompt service is assured at our nearest store, where P. & W. Small Tools are carried in stock for immediate delivery. Place your order there to-day.

PRATT & WHITNEY CO.
OF CANADA, LIMITED
Works: Dundas, Ontario

MONTREAL
723 Drummond Bldg.

TORONTO
1002 C.P.R. Bldg.

WINNIPEG
1205 McArthur Bldg.

WINDSOR
Davis Bldg.

VANCOUVER
B.C. Equipment Co.

HALIFAX
Roy Bldg.

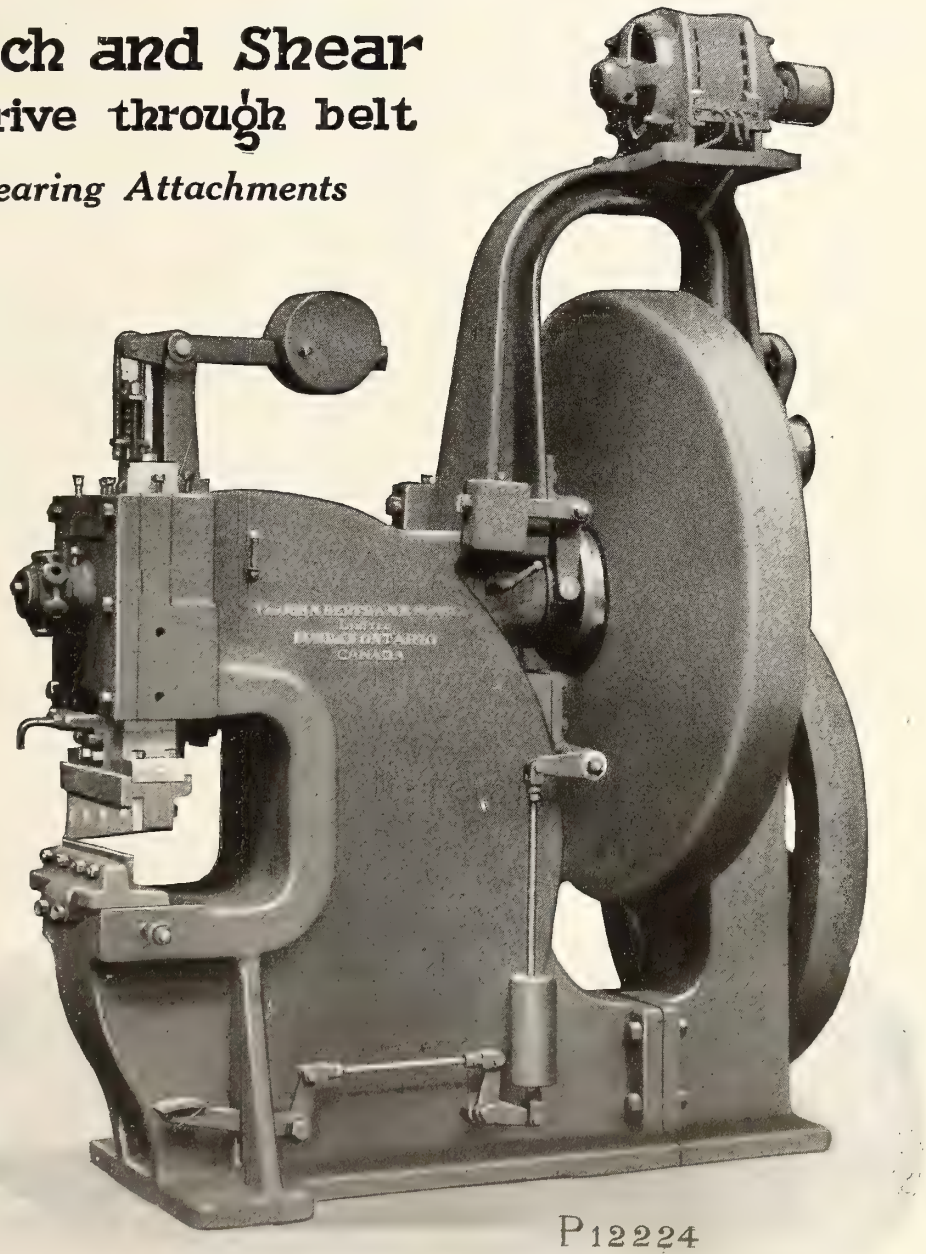


PRATT AND WHITNEY

The BERTRAM Page
MACHINE TOOLS

No.4 Single Punch and Shear
12" Throat Motor Drive through belt

Fitted with Plate Shearing Attachments



Capacity

To punch 1" hole through 1" Plate
To shear 1" Plates
To " 6"x1" Flat Bars
To " 1¾" Round Bars
To " 4x4x⅜" Angles

The John Bertram & Sons Co., Limited
DUNDAS. ONTARIO.

MONTREAL
723 Drummond Bldg.

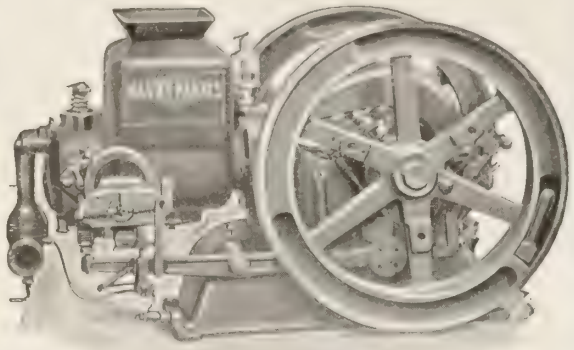
TORONTO
1002 C.P.R. Bldg.

VANCOUVER
609 Bank of Ottawa Bldg.

WINNIPEG
205 McArthur Bldg.

HALIFAX
Davidson Bldg.

Massey-Harris



An Engine You Can Depend On

The Massey-Harris Engine can be depended on to give all the year 'round service in any kind of weather at minimum cost, because it's designed on scientific principles and every part built to stand up and wear long.

Think what these features mean:

Simple in operation.

A Simple and Efficient Carburetor gives a perfect mixture in any kind of weather.

Effective Governor—No charge or spark on Idle Stroke.

Valves Easily Removable.

Large Water Space surrounding Cylinder.

Safe Gasoline Storage in the substantial Cast-Iron Base.

Write for more detailed description of the Massey-Harris Gasoline Engine.

Made in Sizes to deliver from 2 to 15 H.P.

MASSEY-HARRIS CO., Limited

Head Office—Toronto, Canada

Canadian Branches at

Montreal Moncton Winnipeg Regina Saskatoon
Swift Current Yorkton Calgary Edmonton

AGENCIES EVERYWHERE

CUT GEARS

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STELLITE

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The uses that this metal can be put to are not confined to cutting tools.

Besides lathe tools, milling cutters, reamers, drills, etc., Stellite is being used with great success on the following classes of work.

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Consult our service department.

Deloro Smelting & Refining Co.
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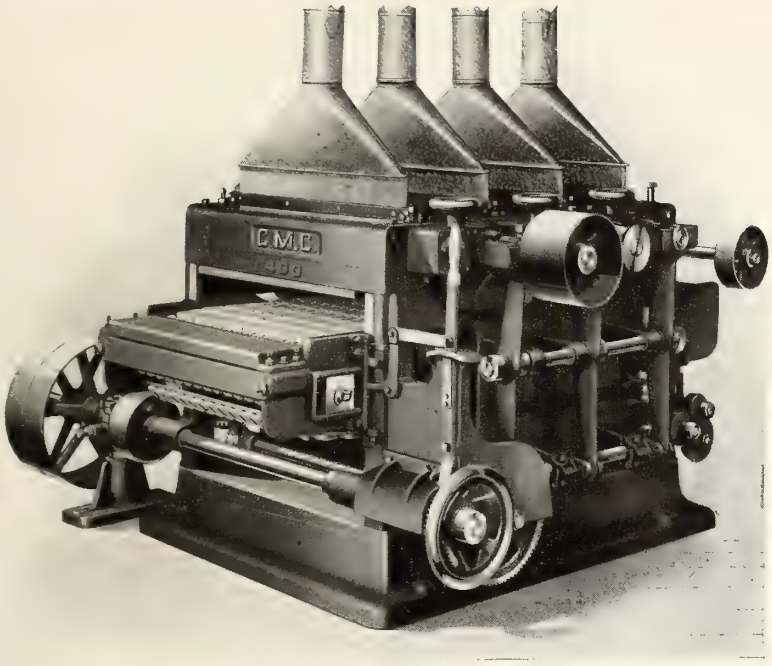
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THE MASTER METAL

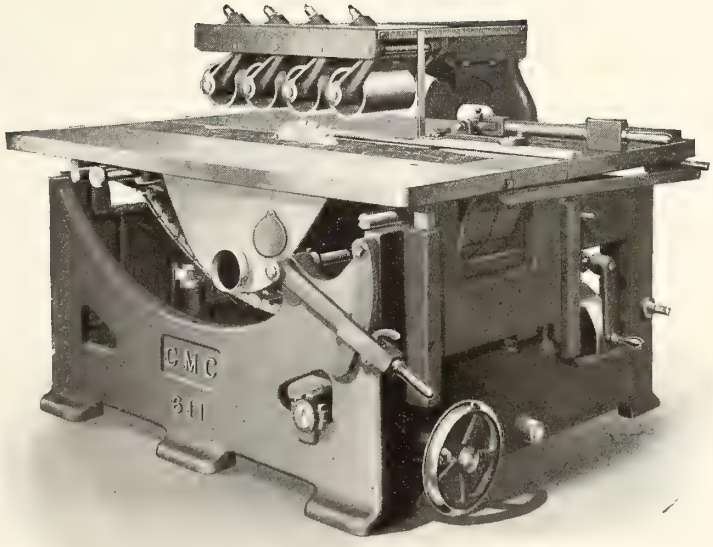


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Produces Great Quantities of High-Grade Work

These two machines make a profit-producing combination for any woodworking plant

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Adapted for Accurate and Heavy Ripping at Fast Speeds

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"MEAD-MORRISON"

CANADIAN MM Co

CANADIAN MM Co

Electric Car Puller

How long does it take you to spot that car?

Do you wait for the switching locomotive, or do you jack by hand?

Do you have trouble in getting laborers for such work?

The ***Car Puller*** requires only ***One Man.***

Capacity of the Puller is 5,000 lbs., at 20 feet a minute, and 2,000 at 55 feet a minute.

Entirely weather proof.



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WORKS: WELLAND ONT.

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SPECIAL

Special Screw Products
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Capacities up to 2¼ in. diam.

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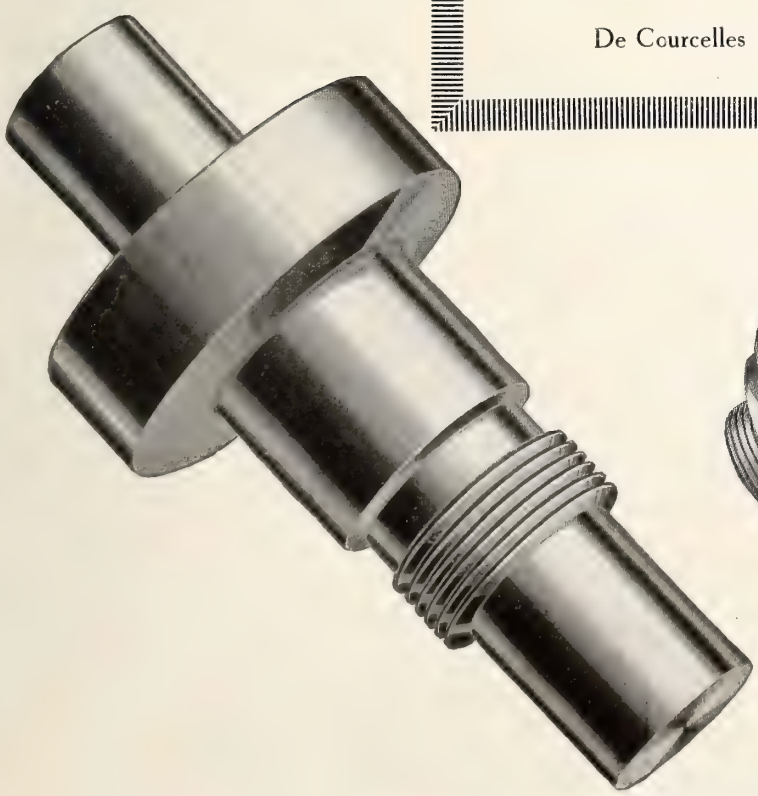
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V., U. S. S. Semi-Finished Nuts
S. A. E. Plain and Castellated Nuts
V., U. S. S. Set Screws

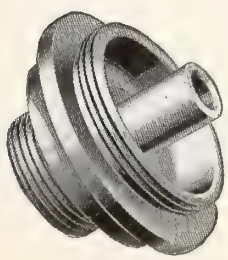
Owing to the market shortage of raw material, it is to the customers' advantage that they anticipate requirements as far ahead of use as possible.

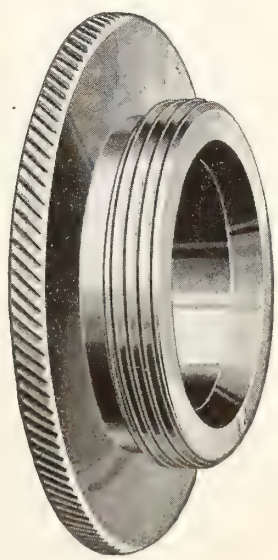
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The One-Piece Fire Pail

A pail without a hoop, seam or joint. Made all in one piece—light as wood and durable as steel. Impervious alike to water and acid.

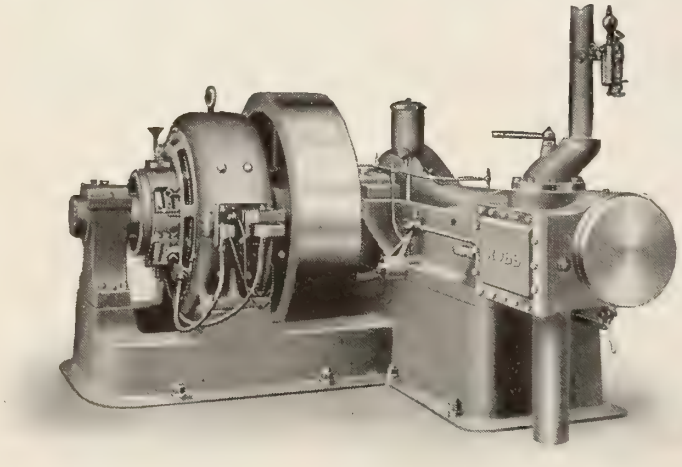
A pail that is always ready when the call comes, always in its rack or on its hook—its rounded bottom prevents it being placed in forgotten corners.



Ask your dealer to show you an Eddy Fire Pail

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Engines

Corliss, slide valve, vertical, horizontal, simple and compound.

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Water tube, return tubular, improved Scotch marine and portable.

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Are All Employers Alike?

The employer with an **up-to-date shop** finds his workers unappreciative.
The employer with an **out-of-date shop** finds his workers unappreciative.
The employer with a **humane policy** finds his workers unappreciative.
The employer of the **old school** finds his workers unappreciative.
The employer who **invests money in Welfare** finds his workers unappreciative.

To the employees' viewpoint, biased by misunderstanding, all employers are alike — they are *employers*. Yet any group of workers, irrespective of language, trade, or creed can be brought to a satisfactory *appreciation* of their employer and of their employment. The same means will produce this appreciation in the worker that produces all true appreciation in the human mind whether high or low in station. That means is *education*.

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Employers are invited to consider an application of this Service which has proved so profitable wherever adequately installed. Write for chart which is of interest to any employer.

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Production Engineering
Industrial Co-ordination

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Founded 1910

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For Sprinkler and Water Supply

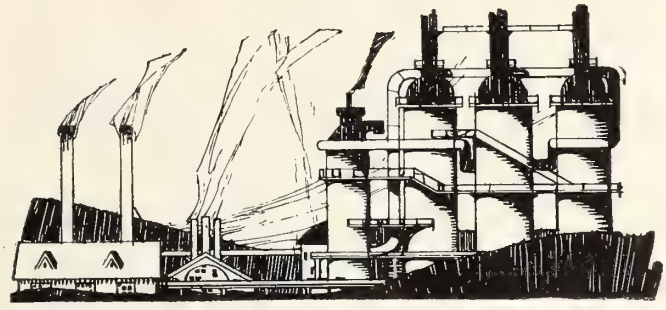
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Founded upon an absolute trust in Canadian development, it looks forward to a far greater Dominion than has yet been conceived.

Firm in this faith, it has planned a chain of modern plants for the production of pure oxygen. Any one of the contemplated plants could adequately supply the demand of today.

Canadians, of this and future generations, may rely upon the best service from an organization whose very existence depends upon the prosperity of the Dominion.

The Dominion Oxygen Company, Ltd., will, from time to time, apprise the public of the progress of its building program and in the meantime it invites the inquiries of Canadian oxygen users as to its broad scope and liberal policy.

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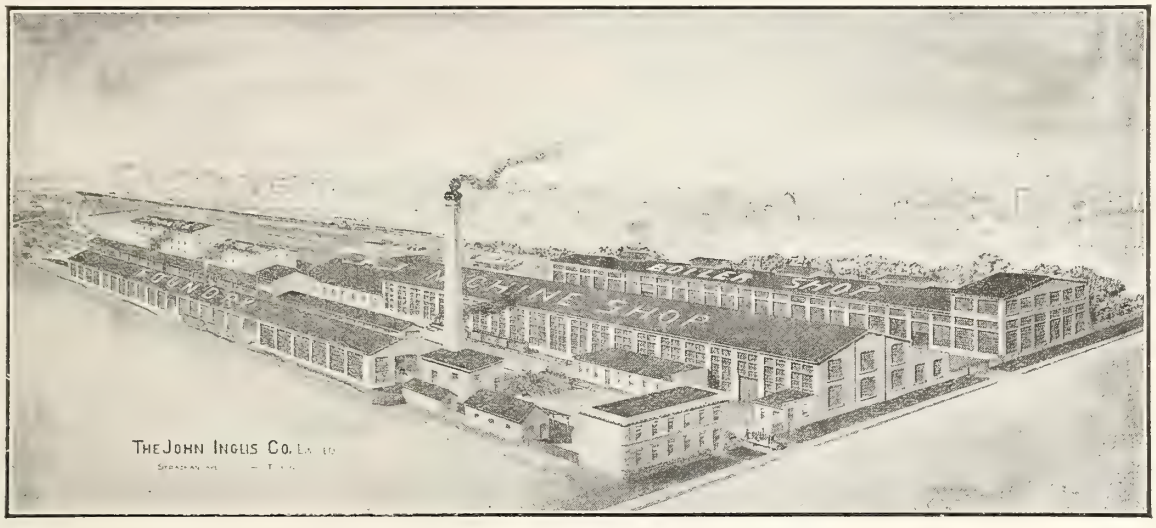
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of All Kinds for Any Service

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There is nothing like it for rapid and accurate production of light to medium forgings.

No. 25 forges up to 2" stock.
1 Horse Power drives it.
Weight 825 lbs.
Price $171.00.

No. 50 forges up to 2½" stock.
2½ Horse Power required for heavy work.
Weight 1,750 lbs.
Price $275.50.

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STRUCTURAL STEEL
and
BRIDGE BUILDERS

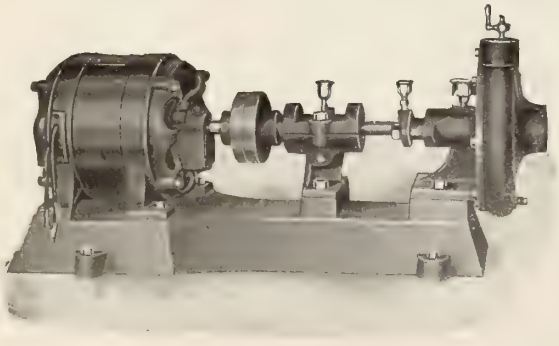


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Over 5,000 Tons in Stock of
Beams, Column Sections, Angles, Tees, Plates, Bars, Checkered Floor Plates, etc.

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Your Pump Problems



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The Smart-Turner Machine Co.
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SAVE OIL
AND
MINIMIZE FIRE HAZARD
BY INSTALLING OUR
Hand Oil Pump

It stops the drips and consequent oil-soaked floor

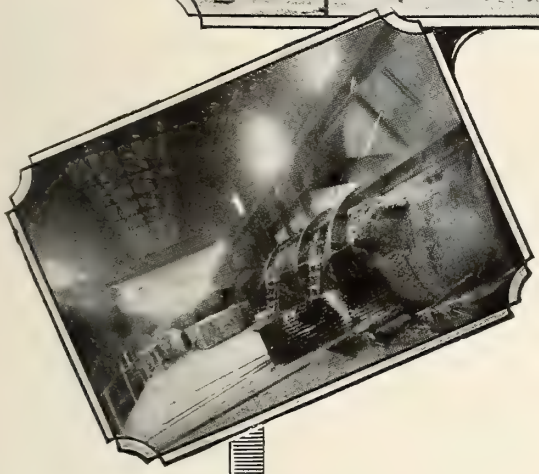
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Hamilton Motor Works
Limited
HAMILTON, CANADA



INCO

Copper Cliff Smelter



COPPER CLIFF is the outgrowth of the first smelter erected in the Sudbury District. It was started in 1886 with one 1-ton furnace and has grown until now it consists of eight blast furnaces, one reverberatory furnace and six large basic converters having an output of six thousand tons per month.

INCO NICKEL

INCO Nickel is sold as shot, high and low carbon; ingots, 25 and 50 lb. sizes; and electrolytic nickel, 99.80%. Prime metals for the manufacture of Nickel steel, Nickel silver, Anodes, and all remelting purposes.

It is also produced as rods, castings, sheets, strip stock and wire.



INCO MONEL METAL

The name Monel Metal is given to a line of metal products produced by the International Nickel Company from a natural nickel alloy—67% nickel, 28% copper, and 5% other metals. These products include Monel rods, Monel castings, Monel blocks, Monel wire, Monel strip stock, Monel sheets, etc.

Monel Metal withstands alkalies, high temperatures and erosive action of gases and superheated steam and most acids. Can be forged, cast, rolled, drawn, machined, brazed, soldered and welded. Takes and retains a perfect nickel finish.

Monel Metal may solve your difficulties—our Technical and Sales Departments will gladly cooperate with you.

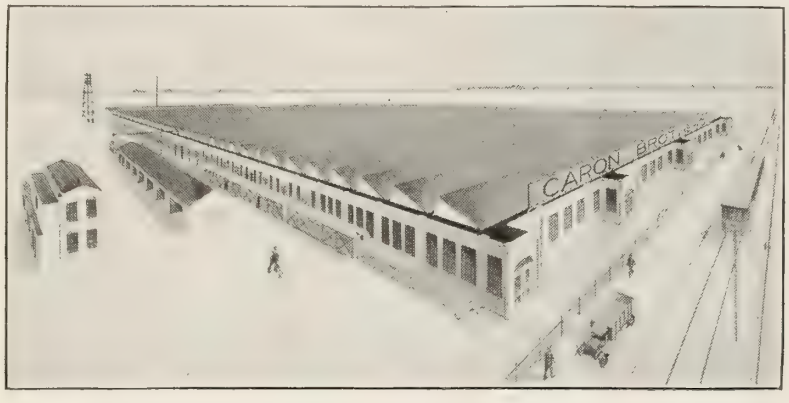
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FINISHED BRIGHT
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DEEP DRAWING QUALITY
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WE SOLICIT YOUR ENQUIRIES

MANUFACTURED BY
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PLANT FOR SALE

Large Manufacturing Plant with building 252'x850', over 200,000 square feet of floor space, 525,000 square feet of land.

Railway Siding full length of building.

Excellent shipping facilities, tide water and rail.

Best labour market in Canada.

Was used only short time on War Work. Built in 1917, of substantial construction—heated and sprinkled throughout.

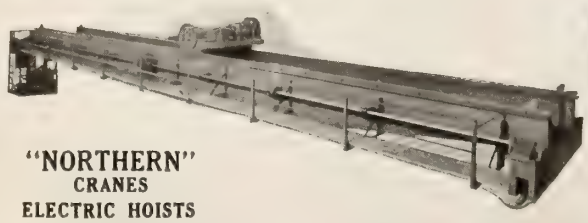
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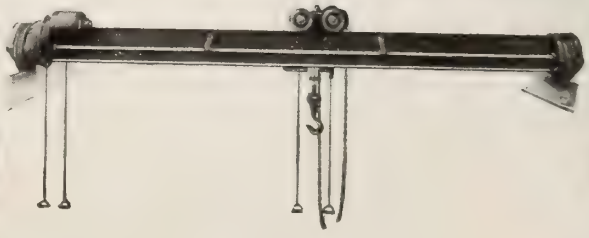
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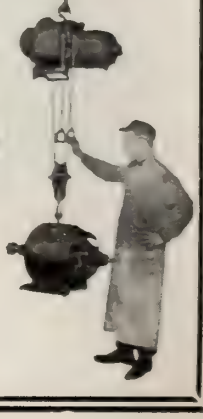
233 Bleury Street **CARON BROTHERS** MONTREAL

CANADIAN-MADE CRANES

ELECTRIC TRAVELLING CRANES HAND CRANES ELECTRIC HOISTS





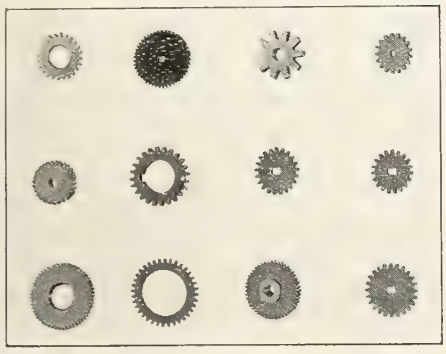


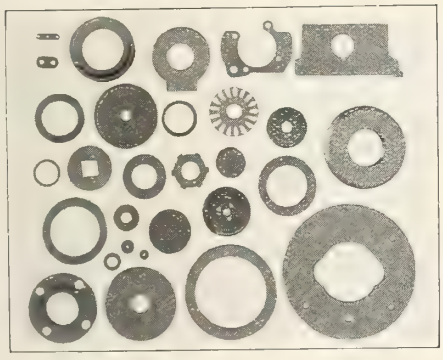
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CRANES
ELECTRIC HOISTS
AIR HOISTS
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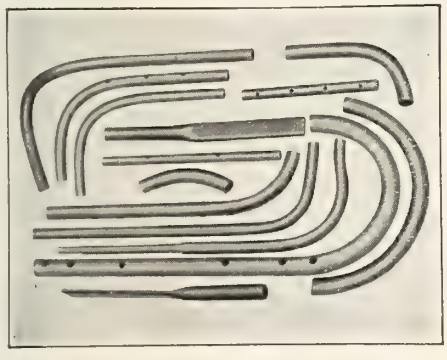
NORTHERN CRANE WORKS LIMITED
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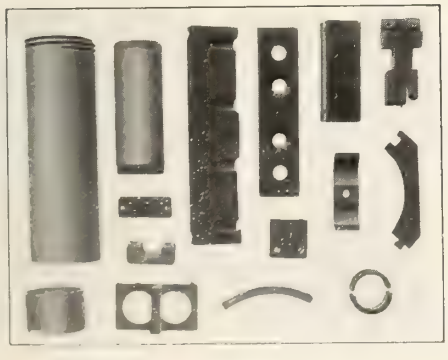
Diamond-F

Each of the many









parts shown on this page represent the working out of an idea. They are really "Diamond-F Ideas."

Modern manufacturing places great emphasis on the raw material question. Manufacturers with vision are especially interested in this question. Many of them call on us with the idea that Diamond Fibre can serve them.

And the most frequent result is that we do help them. Oftentimes we succeed in lowering their manufacturing costs on various parts; or we double the life of a part; or afford them more perfect insulation; or improve the appearance of their product.

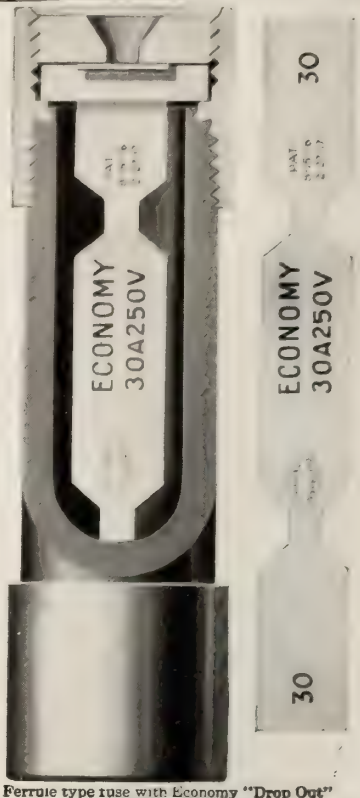
These manufacturers are in the electrical, mechanical, industrial, textile, automotive, and other industries. Perhaps in your production plans there is a Diamond Fibre idea that you have wondered about. Our engineers and mechanical experts will work out that idea for you if you tell us about it. Also ask for "Diamond Fibre and Its Uses."

Department "A"

Diamond State Fibre Company of Canada, Limited

455 King Street West, Toronto, Canada





Ferrule type fuse with Economy "Drop Out" Renewal Link

ECONOMY *renewable* FUSES

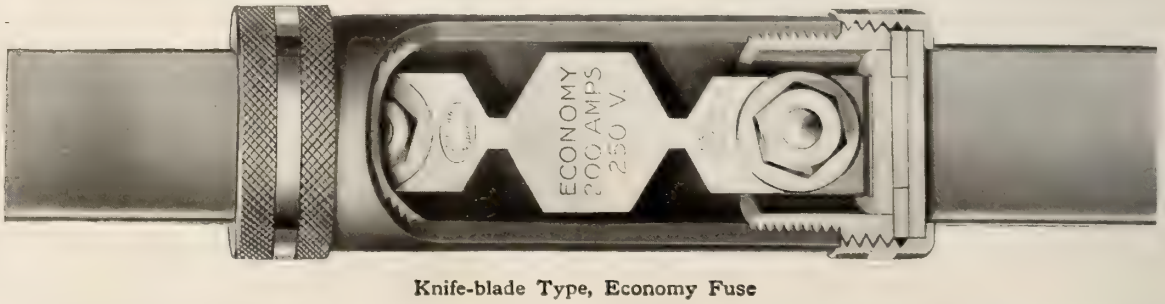
Industries persisting in the use of "one-time" fuses pay more for electrical protection than those equipped with Economy Fuses.

The famous Economy "Drop Out" Renewal Link makes possible an annual saving of 80% in fuse maintenance costs.

Nothing is destroyed when an Economy Fuse blows but the inexpensive strip of fusible metal. This is quickly and easily replaced with a new "Drop Out" Link without delay to men or machinery. The heavy cartridge, end caps and the winged washers which lock the fuse are virtually indestructible and are used again and again.

Check up fuse costs in your plant. And remember that Economy Fuses give maximum protection at minimum cost.

For sale by all leading electrical jobbers and dealers



Knife-blade Type, Economy Fuse

Economy Fuses were the first line using inexpensive bare links for restoring blown fuses to their original efficiency to be APPROVED IN ALL CAPACITIES by the Underwriters' Laboratories.

ECONOMY FUSE & MFG. CO.
OF CANADA, LTD.
UNITY BLDG. MONTREAL, CANADA

A VALVE for EVERY SERVICE

Cutting Out Unnecessary Costs

The efficiency of a plant is determined to a very large extent by the dependability of its valve equipment.

If valves break down before other items of equipment an injustice is done to the entire plant, because valves should last as long as good plant equipment.

Good valves do.

JENKINS Valves are good valves and the Diamond Trade Mark (cast upon the body) assures continued operation—even where the conditions of usage are most severe.

Their 56 years of service record guarantees that.

The time, labor and expense involved in "shut-downs" for repairs and replacements are entirely eliminated in plants equipped with Genuine Jenkins Valves.

The Diamond Trade Mark is a guarantee of the genuine. Look for it when buying.

Catalogue No. 8, which pictures and describes the complete line of Jenkins Valves, will be sent you on request.

TRADE JENKINS MARK
Jenkins Bros



Fig. 402

TRADE JENKINS MARK
Jenkins Bros

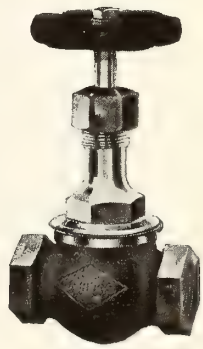


Fig. 106

Jenkins Bros.
LIMITED

TRADE JENKINS MARK Jenkins Bros

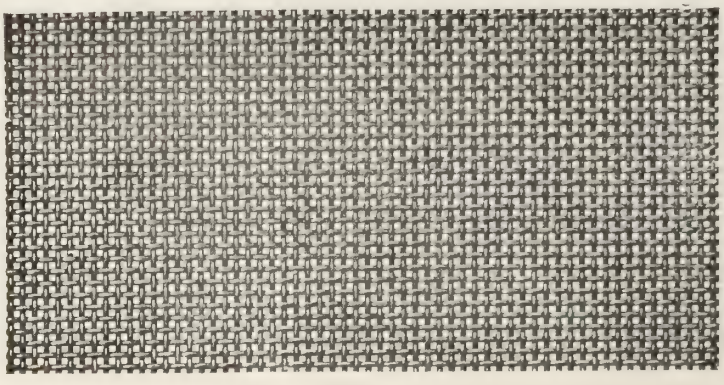
Head Office and Works: 103 ST. REMI ST. MONTREAL Can.
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MANUFACTURERS OF

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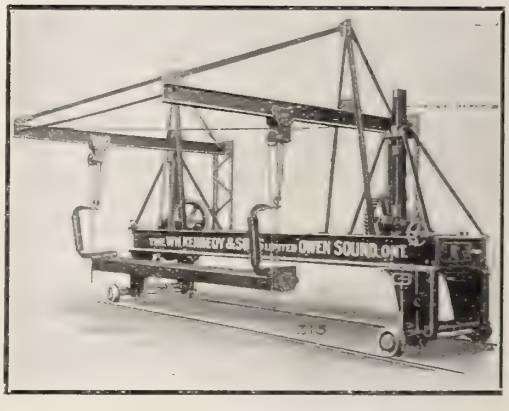
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PROPELLER WHEELS

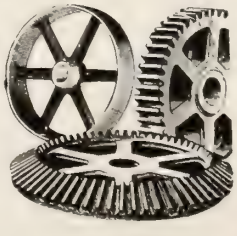


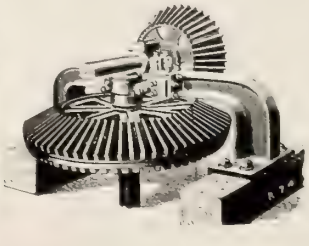
WATER WHEELS



STOPLOG WINCHES

Gears



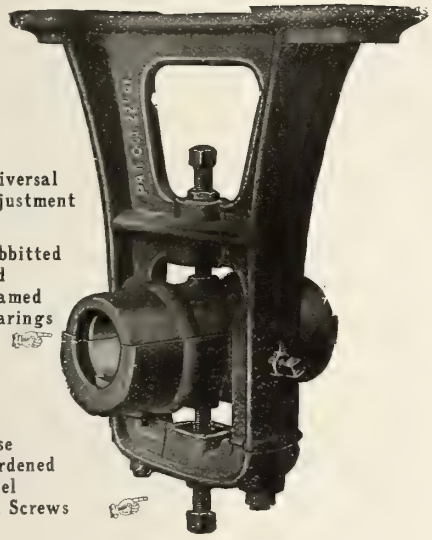


Steel Castings

THE WM. KENNEDY & SONS, Limited - Owen Sound, Canada

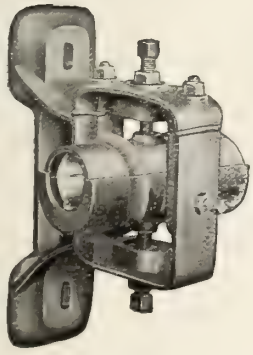
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THE UNIVERSAL ADJUSTMENT FOR UNIVERSAL USE



AN accurate adjustment in either direction—vertical or horizontal—the adjustment that will take that wearing strain off your drives, quiet them, increase your power and reduce your transmission expense.

Their solid, super-strong construction coupled with the **BOND** ring oiling system—a lubrication perfection—guarantees long life and satisfactory service under unusual conditions.



The Bond Ball and Socket feature will save your plant in every way.

Make your drives flexible—let Bond Transmission solve your problems.

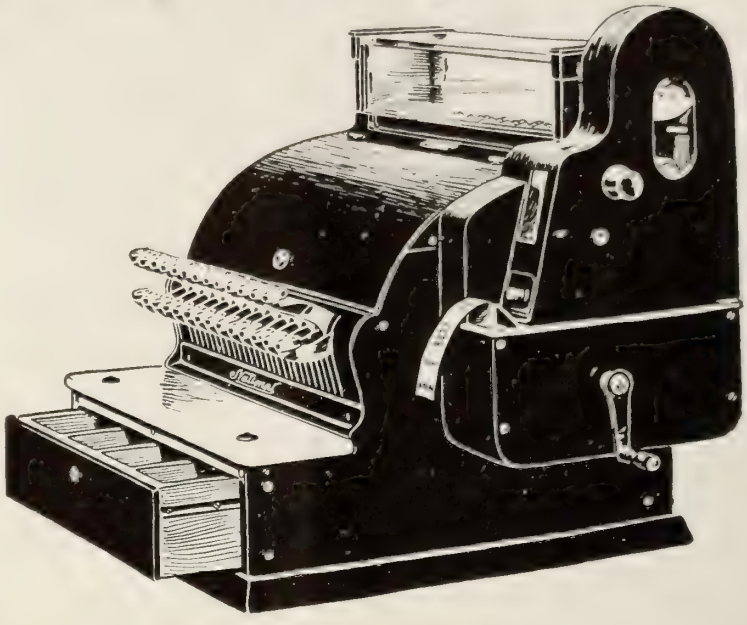
Catalogue I C. 38 will give you many valuable particulars.

TRADE MARK B D-S REG. U.S. PAT. OFF. AND FOREIGN COUNTRIES BOND DOUBLE-SURE QUALITY

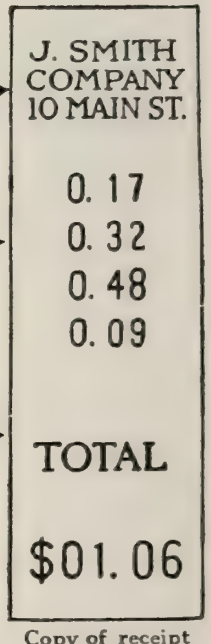
Bond **ENGINEERING WORKS Limited**
Villiers and Munition Streets
TORONTO, CANADA
CANADIAN MADE PRODUCTS

TRADE MARK B D-S REG. U.S. PAT. OFF. AND FOREIGN COUNTRIES BOND DOUBLE-SURE QUALITY

This machine does what no other receipt-printing cash register can do.



1. It prints the merchant's name.
2. It prints the price of each article.
3. It adds the items.
4. It prints the total of all items.
5. It retains added and printed records.



Copy of receipt printed for each customer

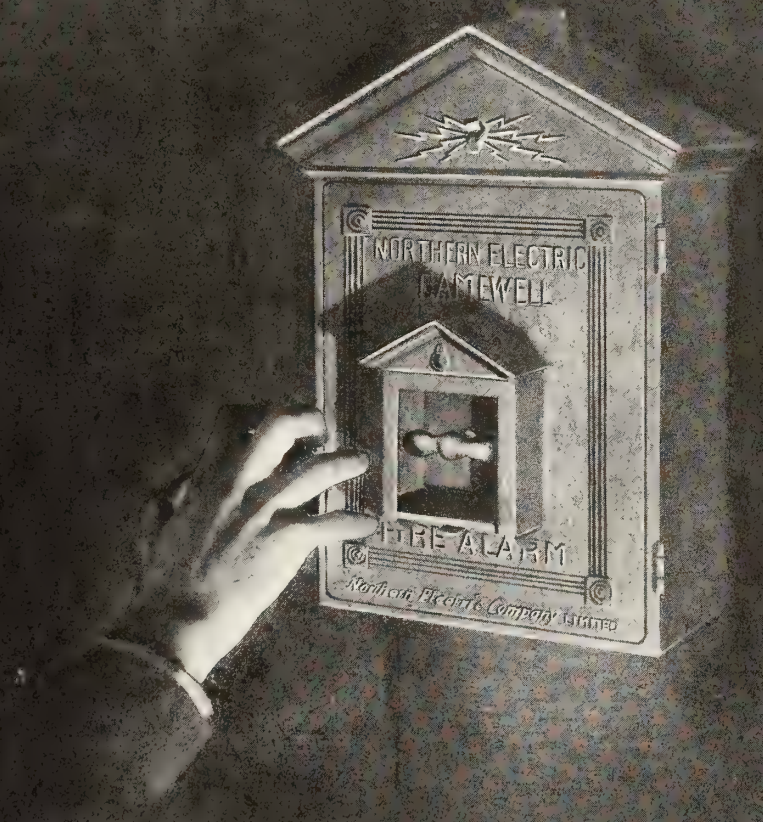
It also does other important things for merchants, clerks, and customers.

We make cash registers for every line of business

NATIONAL CASH REGISTER CO.

OF CANADA LIMITED

When SECONDS Mean *LIVES*



Northern Electric
GAMEWELL

For Forty Years the Most Dependable Fire Alarm Equipment Made

CANADIAN FURNACE CO.

LIMITED

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Manufacturers of Pig Iron

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"VICTORIA" FOUNDRY IRON

Strong—Soft—Neutral

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SOLE SALES AGENTS:

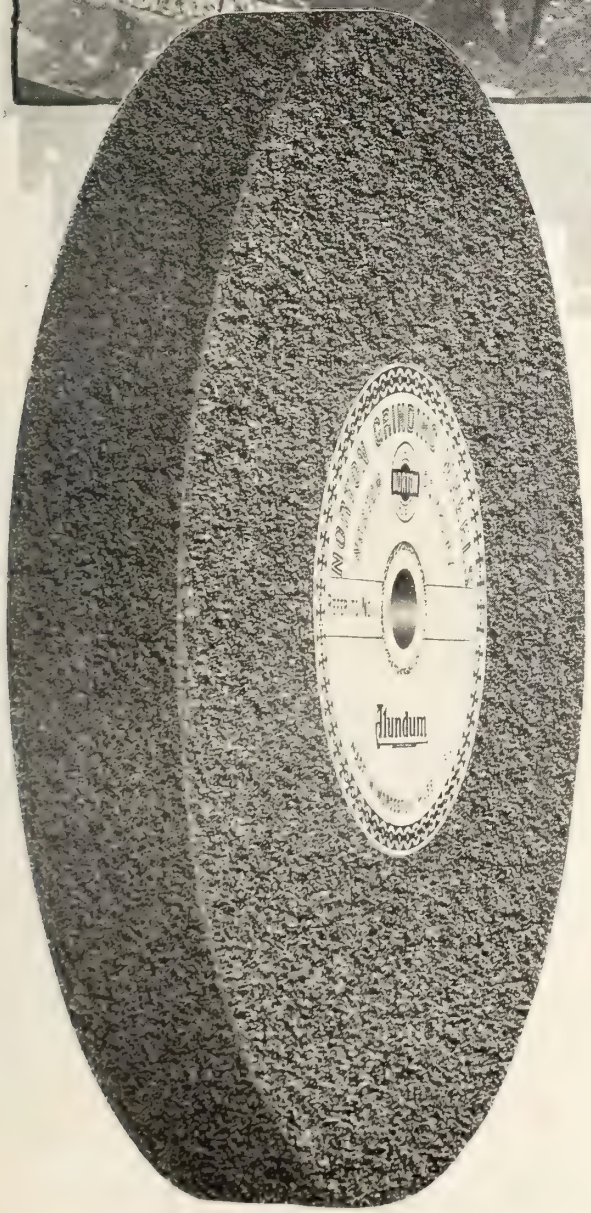
M. A. HANNA & CO.

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Alundum in the Foundry

Tearing off fins and excess metal from giant castings is no difficult machining operation, but it is rough on the wheel doing this heavy foundry work.

ALUNDUM wheels *stand up* under the strain of hogging off metal. This artificial abrasive known to the grinder as "Alundum," has no superior for fast and cool cutting.

The size of the wheel, the amount of material to be removed, and the nature of the material to be ground readily determine the size of the grain.

Norton engineers qualified by years of experience are ready to give recommendations to the foundry man for whatever work is to be done.

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Electric Furnace Plants
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ALUNDUM WHEELS for STEEL and STEEL ALLOYS



The Mark of Quality,
Value, and Service in—

LUMBER

Let us quote on your
requirements in

Spruce and White Pine

also in

Kraft and Unbleached Sulphite Pulp

Bathurst Lumber Co., Limited
Bathurst, N.B.

Full Time and Overtime

HEAVY service imposes a tremendous strain on your plant machinery. Every individual part of every unit must be properly lubricated to carry the load.

Scientific selection of your lubricating oils is every bit as important as the careful choice of mechanical units themselves.

Imperial Lubricants, backed up by Imperial Service, will solve your lubricating problems. Increased production, minimum depreciation and lowered lubricating costs surely follow.

There's a right grade of oil for every service condition; the quality is always uniform, with ample supplies conveniently available. Imperial Lubrication Engineers will gladly advise you on all lubricating problems.

Write to 56 Church St., Toronto.

IMPERIAL

Lubricants

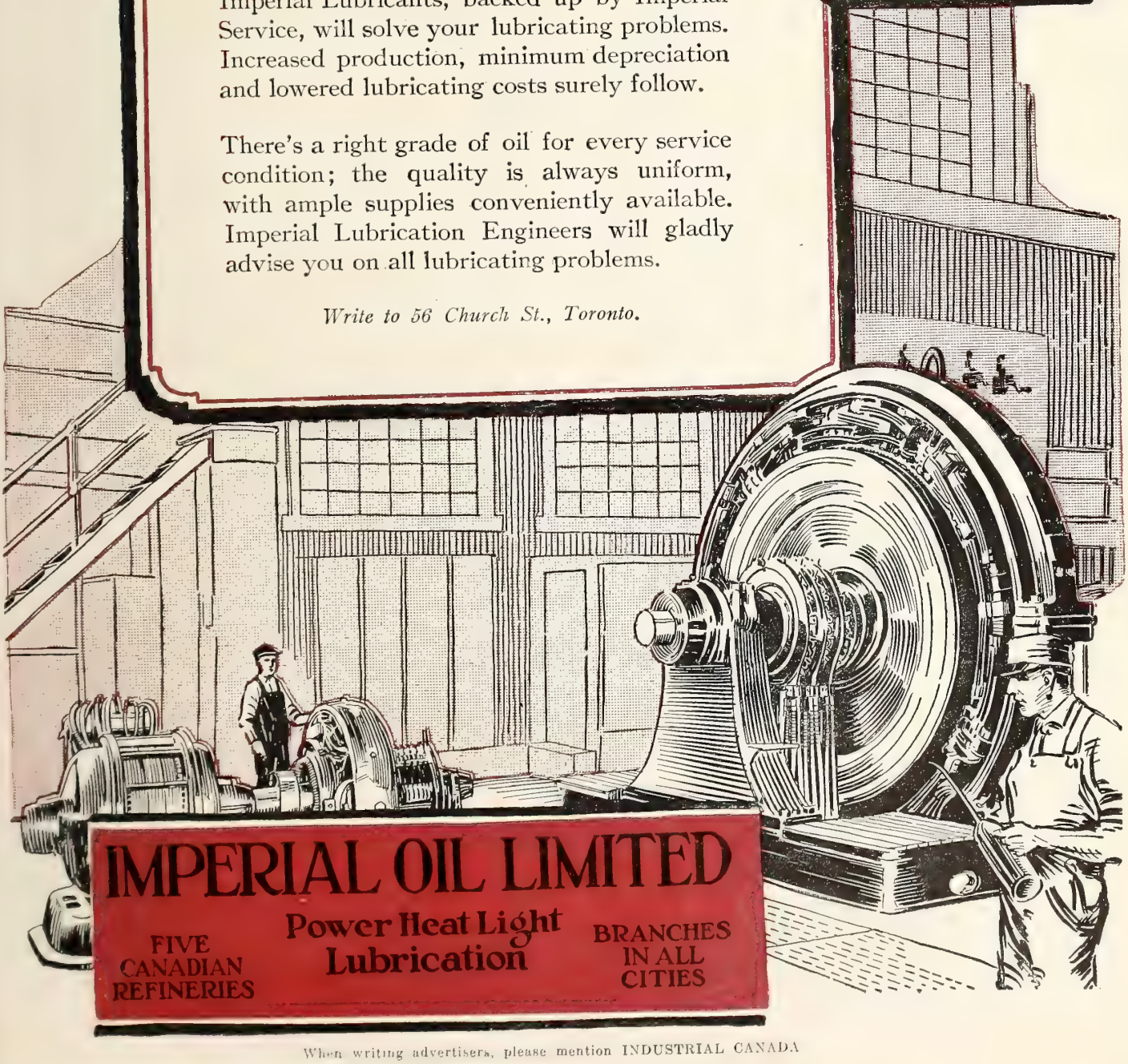
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FIVE CANADIAN REFINERIES

Power Heat Light Lubrication

BRANCHES IN ALL CITIES



Canadian Carbide

Made in Canada

SOLD THE WORLD OVER

Second to None in

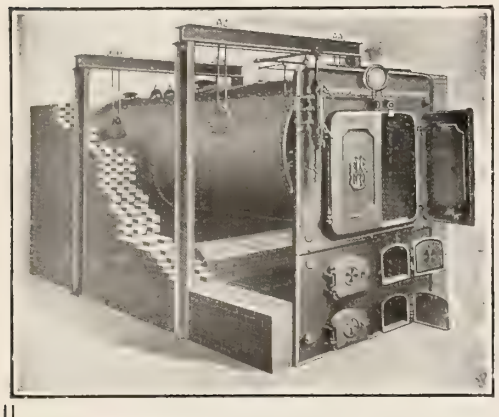
QUALITY, GAS YIELD
AND PACKAGE

MANUFACTURED BY

Canada Carbide Company, Limited

MONTREAL - CANADA

Works:
St. Catharines, Ont.
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Return Tubular Boiler with suspension harness for both ends

We make the following types of Boilers

CONNELLY WATER TUBE (Patented U.S. and Canada)
RETURN TUBULAR
UPRIGHT
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We specialize in the making of

SMOKE STACKS
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BLOWPIPES - REGULATORS
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8 FACTORIES IN ACTUAL OPERATION AT
HALIFAX-MONTREAL-TORONTO-LONDON-SUDBURY
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A few facts about Liquid Air Service

Liquid Air Service Department is composed of men who are specially selected for their expert practical and technical knowledge of the Oxy-Acetylene Process. They are at the disposal of all our customers to whom their services may be of use, for which no charge is made and no obligation incurred.

In addition to our eight factories, five Distribution Stations have been established at St. John's, Nfld., Sydney, N.S., Quebec, Que., Ottawa, Ont., and Windsor, Ont., respectively, for an immediate supply of Oxygen and Acetylene to consumers located in these districts, with a minimum of freight rates and the elimination of delays occasioned by long distance haulage

At the present time as in the past, L'Air Liquide is in a position to give service which is unassailable.



Waterous

BRANTFORD, ONTARIO, CANADA

Power & Heating Boilers

Proper steam production is essential in any power mill.

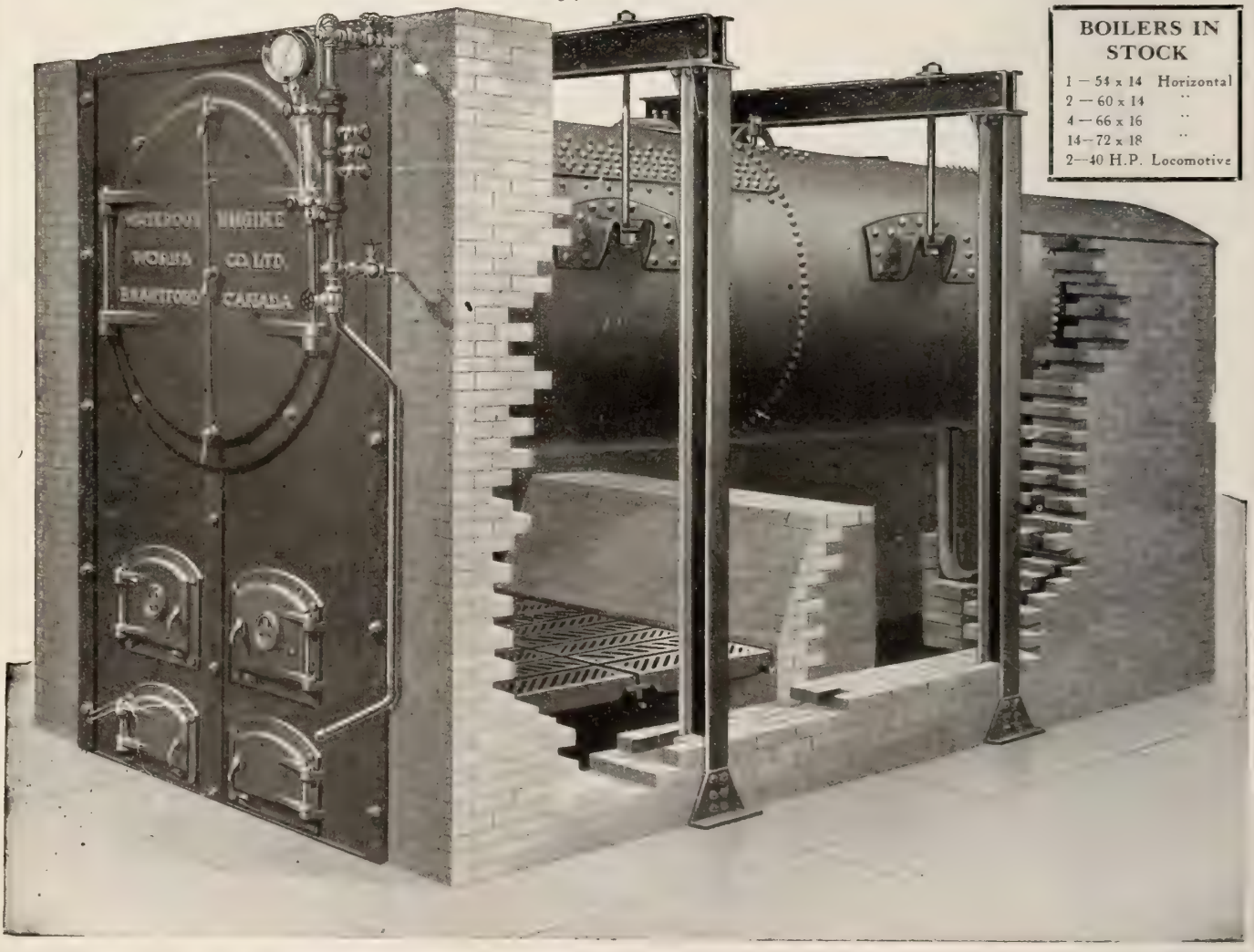
Waterous Boilers enjoy an enviable reputation for easy steaming and for economy in fuel consumption. The correct design of boiler settings is mainly responsible for this.

Whether you are burning coal, screenings, refuse, wood, sawdust, gas or oil, we supply settings that burn it with the least labor and with best economy.

We build Heating Boilers up to 72" x 16', Return Tubular Boilers for power use, up to 165 H.-P.; settings, single or battery, in brick or all-steel.

BOILERS IN STOCK

1 — 54 x 14	Horizontal
2 — 60 x 14	"
4 — 66 x 16	"
14 — 72 x 18	"
2 — 40 H.P.	Locomotive



MOLSONS BANK BLDG., VANCOUVER, B.C. WINNIPEG, MANITOBA

The Waterous Engine Works Co., Ltd., Brantford, Canada

Ormsby



CANADA CAR AND FOUNDRY CO., LTD., MONTREAL, P.Q.
ANGLIN'S LIMITED, MONTREAL, GENERAL CONTRACTORS
OVER 45,000 FEET OF ORMSBY-LUPTON "STEEL SASH" IN THIS BUILDING

MORE FOR YOUR MONEY
In Steel Sash — Plus Quality

ORMSBY-LUPTON Sash is the heaviest made in Canada by **five** to **ten** per cent.—this means the strongest and the most resisting.

That is why leading engineers insist on the Ormsby-Lupton Steel Sash. Why concerns that build for permanency such as The T. Eaton Co., Ltd., The Canada Car and Foundry Co., Ltd., The International Nickel Company, Ltd., The American Can Company, Prest-O-Lite, and many others, consistently use our sash.

Leading engineers and architects specify and prefer our goods.

We give the **most for the money in Steel Sash.** Put our service to the test and satisfy yourself that our goods, our service, and our prices mean the greatest Steel Sash value in the country.

Ormsby-Lupton Steel Sash is the Quality Sash

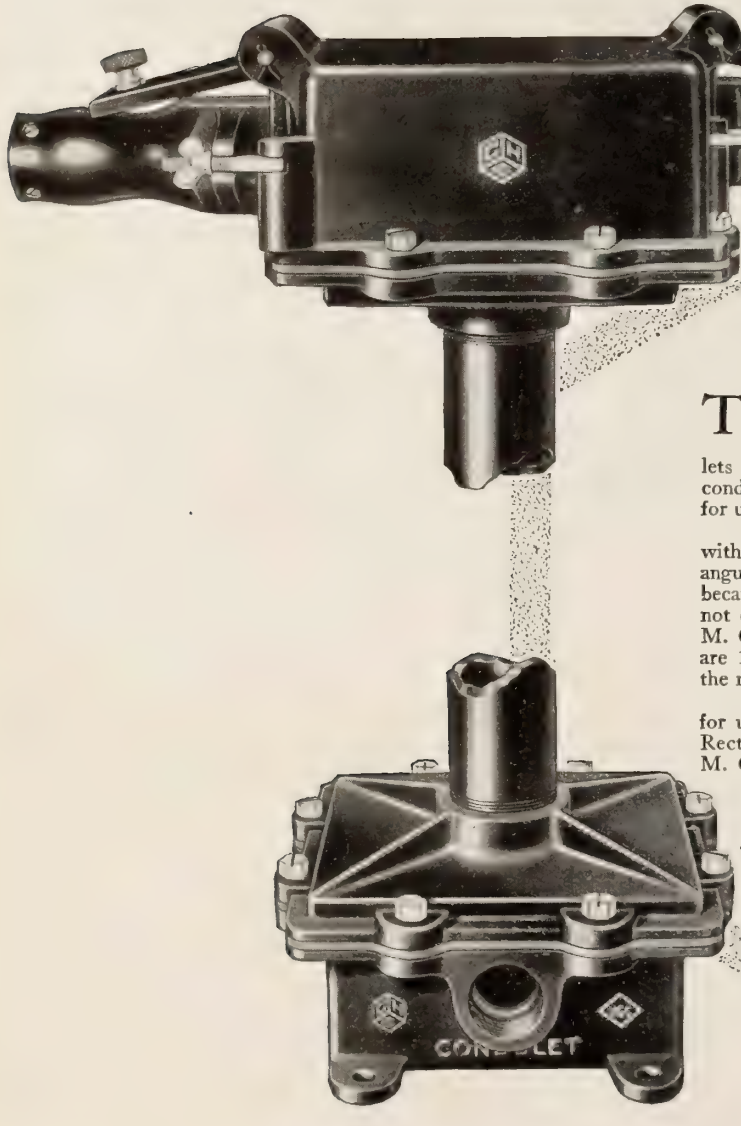
The A. B. ORMSBY CO., LIMITED - - TORONTO

Associated with The Metal Shingle & Siding Company, Limited
Factories at Preston, Toronto, Montreal, Winnipeg, Saskatoon, Calgary

AGENTS:
Maritime Provinces: F. A. Gillies & Co., Halifax, N.S. British Columbia: A. T. Chambers, Vancouver

CONDULETS

Condulet the Job



Yard Charging Condulet

THIS Condulet is for storage battery charging outlets in railroad terminal and coach yards.

It is designed for single and double outlets and is suitable for surface and underground conduit installations. The double receptacle type for under ground conduit installations is here shown.

Either of two types of receptacles is furnished with this condulet; a Crouse-Hinds Standard Rectangular Receptacle, which we strongly recommend because its design is such that cinders and ice can not collect thereon, or a Crouse-Hinds improved M. C. B. Standard Receptacle. Both receptacles are 100 Amperes capacity. A spring door closes the receptacle opening when plug is out.

Two types of 100 Ampere plugs are provided for use with the Condulet, either a Crouse-Hinds Rectangular Plug or a Crouse-Hinds Improved M. C. B. Standard Plug.

CROUSE-HINDS COMPANY
of Canada, Limited
TORONTO, ONTARIO, CANADA

Condulets Panelboards
Knife Switches Floodlights
Guy Anchors

CROUSE-HINDS

Paraline

REG. CAN. PAT. OFF



"Like turning a key in the lock"

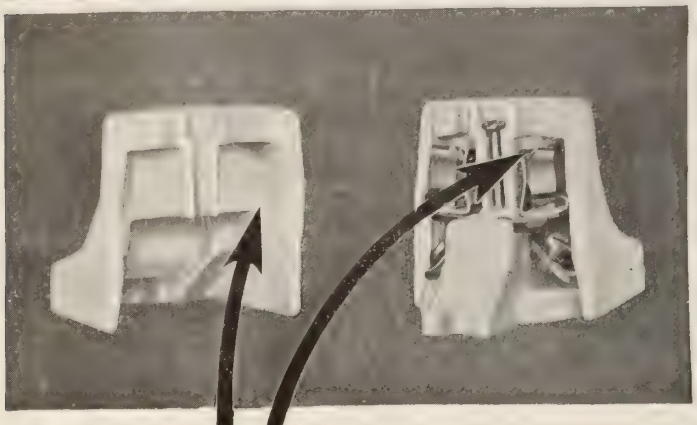
"PARALINE"

The new HUBBELL PLUG CAP with the blades that turn!

YOU TURN THE BLADES TO FIT THE SLOTS

HARVEY HUBBELL COMPANY
OF CANADA LIMITED
ELECTRICAL SPECIALTIES
TORONTO CANADA

2090-U



These are the HUBBELL Individual Arcing Chambers

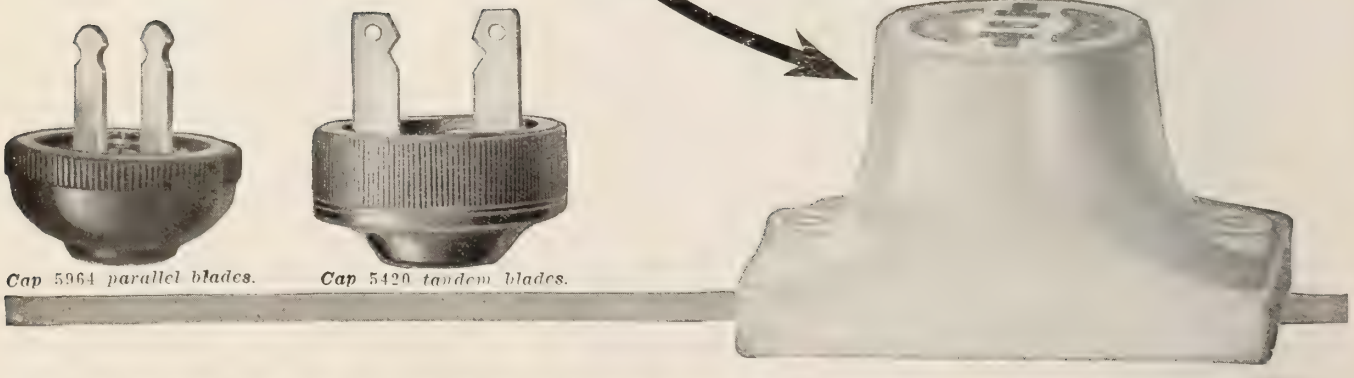
They make short-circuiting impossible in a Hubbell Receptacle.

An unbroken wall of porcelain surrounds each contact spring. The cap blades, passing through the narrow T-slot openings are gripped in these two chambers.

Any spark at make or break is inside the receptacle where it can do no harm.

Hubbell Receptacles are made for wood and metal moulding, cleat wiring and concealed conduit work. They have the patented T-slot which takes any standard plug-cap whether its blades are tandem or parallel.

Write for literature



Cap 5964 *parallel blades.* *Cap* 5420 *tandem blades.*

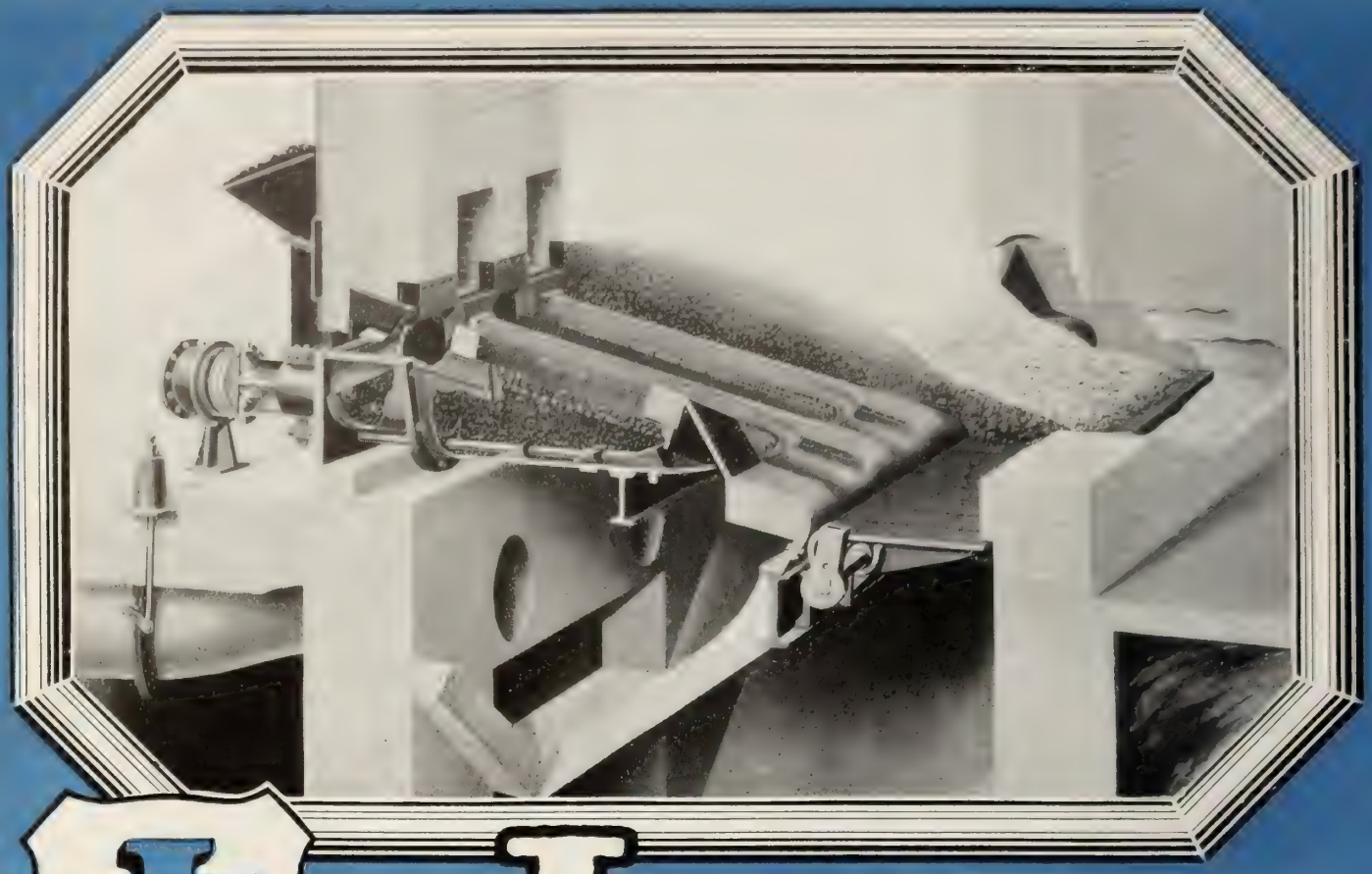
2083-T

HARVEY HUBBELL COMPANY
OF CANADA LIMITED
ELECTRICAL SPECIALTIES
TORONTO CANADA



JONES ENGINEERING

What Properly Applied Combustion Engineering Means to You—and to Canada



Jones

Behind the Jones "A-C" Stoker—
A Quarter Century Engineering Progress

Of all the elements that go to make mechanical equipment successful none is more important than time. By evolution and constant improvement we strive for perfection.

Time has played its part with the Jones stoker. The Jones "A-C" or automatically cleaned stoker marks the climax of twenty-five years of engineering experience. It is the logical development of the Standard Jones stoker invented in 1888 and used so successfully throughout the United States and Canada, and it is backed by the combined engineering skill of The Under-Feed Stoker Company of America and The Under-Feed Stoker Company of Canada, Limited.

To-day the Jones stoker bears the enviable reputation of being the first under-feed stoker, the first stoker to which forced draft was applied, the first to provide for the automatic control of fuel and air, and the first to use a power-operated dumping mechanism to save labor in the handling of ash.

To-day the Jones "A-C" stoker is the simplest high-duty stoker and simplicity guarantees both low maintenance and continuous operation. Being modeled after the Standard Jones stoker and with automatic control of fuel and air, the Jones "A-C" stoker is highly efficient. It saves both coal and labor.

Send for the new Jones "A-C" catalogue. It describes such new features as the ***balanced dump plate***—a labor-saving device without becoming a trouble-maker, the ***distinctive high side tuyeres*** which prevent clinker formation on the side walls, the ***Cole automatic valve*** which automatically proportions the fuel and air supply so as to secure efficient combustion at all ratings.



Engineering

Behind Each "A-C" Installation—An Engineering Service that Guarantees its Success

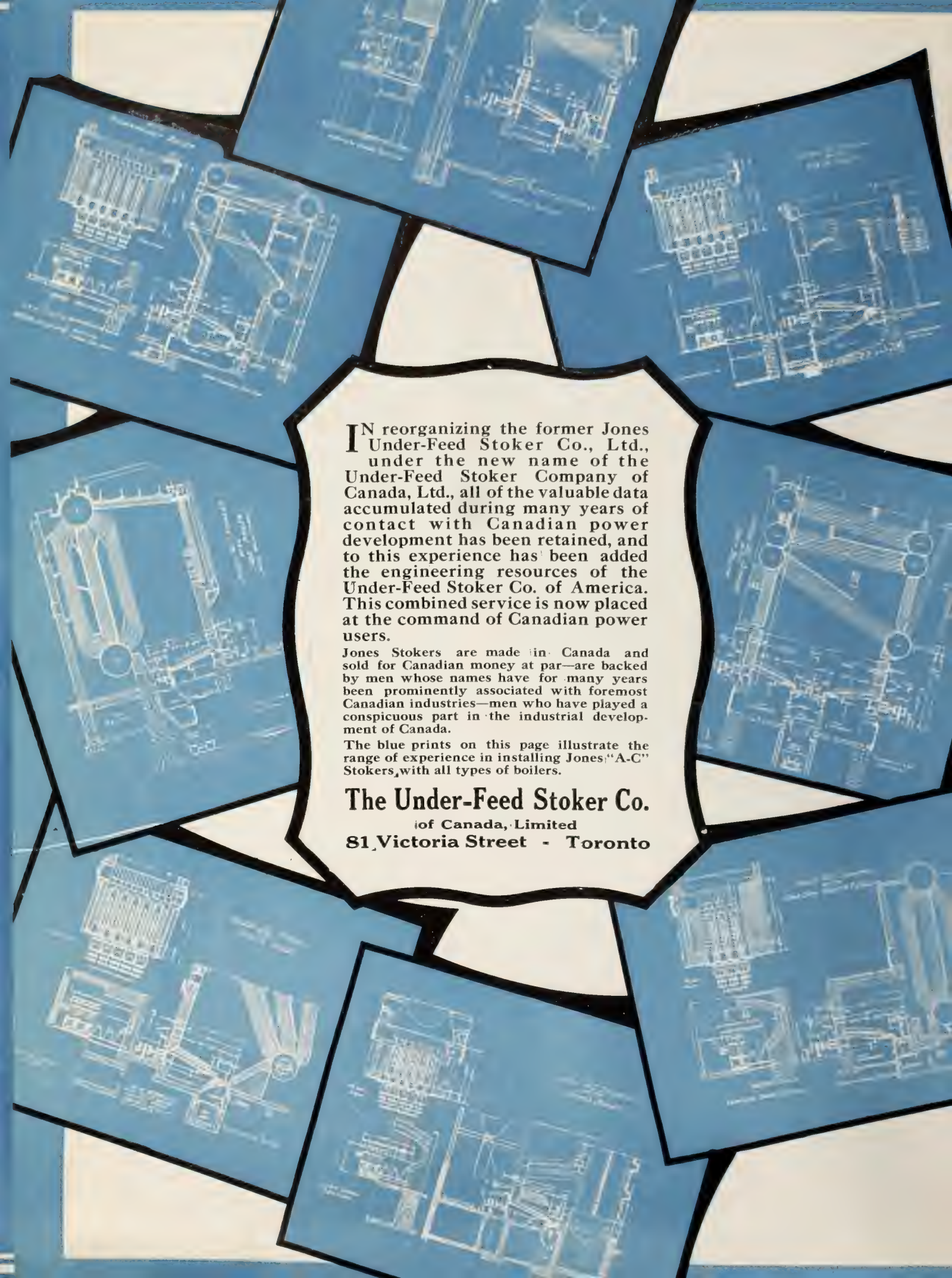
Jones engineering starts when the stoker installation is contemplated, and *does not end* when it is completed. Every Jones salesman is a trained engineer; all have access to the fund of engineering data that have been accumulated during a quarter-century of diversified experience in the specialized field of combustion engineering.

Your load, fuel and power production problems almost invariably suggest a parallel which has been solved during the long experience of Jones engineers. The wealth of Jones experience affects not only stoking, but your entire power plant problem. You should take advantage of it when plans are first taking shape.

Since the performance of Jones equipped plants is the strongest argument that can be offered for Jones Stokers, the interest of the Jones organization does not cease when the installation is completed. The record of your plant must be added to the sum-total of results that prove the Jones Stoker "pays for itself, then pays dividends." The stoker installation must meet specifications and continue to measure up to specifications year in and year out; and it is the duty of Jones service to see that it does.

No detail is overlooked that will insure a daily duplication in regular service of the best results that can be obtained on test runs by expert combustion engineers. The men who are to operate Jones Stokers must become as familiar with the means of bringing out the full powers of the Jones as are Jones engineers. And since it is yearly operation, rather than test results, that builds stoker reputation, the Jones organization has every reason to insist that the operator give the Jones Stoker a square deal. In educating this man in the operating possibilities of the greatest of all stokers we are also giving the operator and his employer a square deal.

The best stoker cannot produce the highest efficiency of which it is capable unless every detail connected with its installation is worked out to exactly meet the individual conditions encountered. The setting must not only fit the stoker, but must fit the stoker for burning the most economical steaming coal available. Jones engineering service is a part of the Jones Stoker, and is just as valuable as the many mechanical advantages.



IN reorganizing the former Jones Under-Feed Stoker Co., Ltd., under the new name of the Under-Feed Stoker Company of Canada, Ltd., all of the valuable data accumulated during many years of contact with Canadian power development has been retained, and to this experience has been added the engineering resources of the Under-Feed Stoker Co. of America. This combined service is now placed at the command of Canadian power users.

Jones Stokers are made in Canada and sold for Canadian money at par—are backed by men whose names have for many years been prominently associated with foremost Canadian industries—men who have played a conspicuous part in the industrial development of Canada.

The blue prints on this page illustrate the range of experience in installing Jones "A-C" Stokers, with all types of boilers.

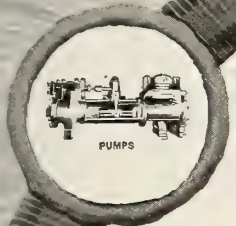
The Under-Feed Stoker Co.

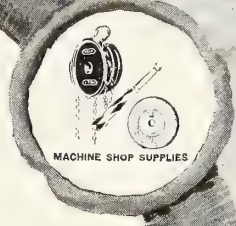
of Canada, Limited

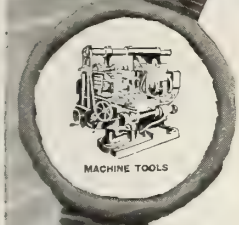
81 Victoria Street - Toronto

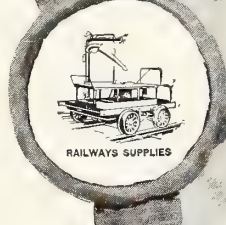
FAIRBANKS-MORSE



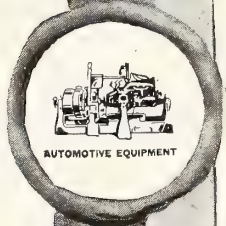


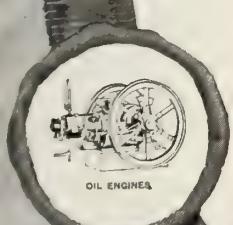


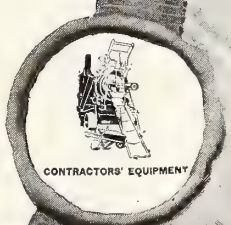




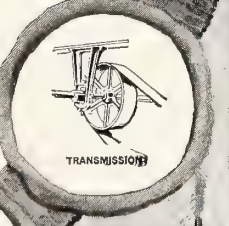


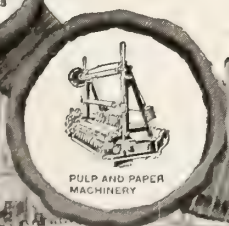


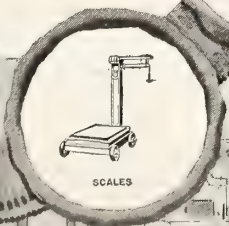












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1 1 h.p. Westinghouse.
1 2 h.p. Wagner.
3 ½ h.p. Wagner.

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2 ⅓ h.p. Menominee.

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1 ½ h.p. Royal, 110 volt, 1800 r.p.m.

Second-hand, 25 Cycles, 550 Volt Motors.

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1 18 h.p. Lancashire, 750 r.p.m., base, pulley, starter with NVR.
1 7½ h.p. Fairbanks, 750 r.p.m., base, pulley, starter with NVR.
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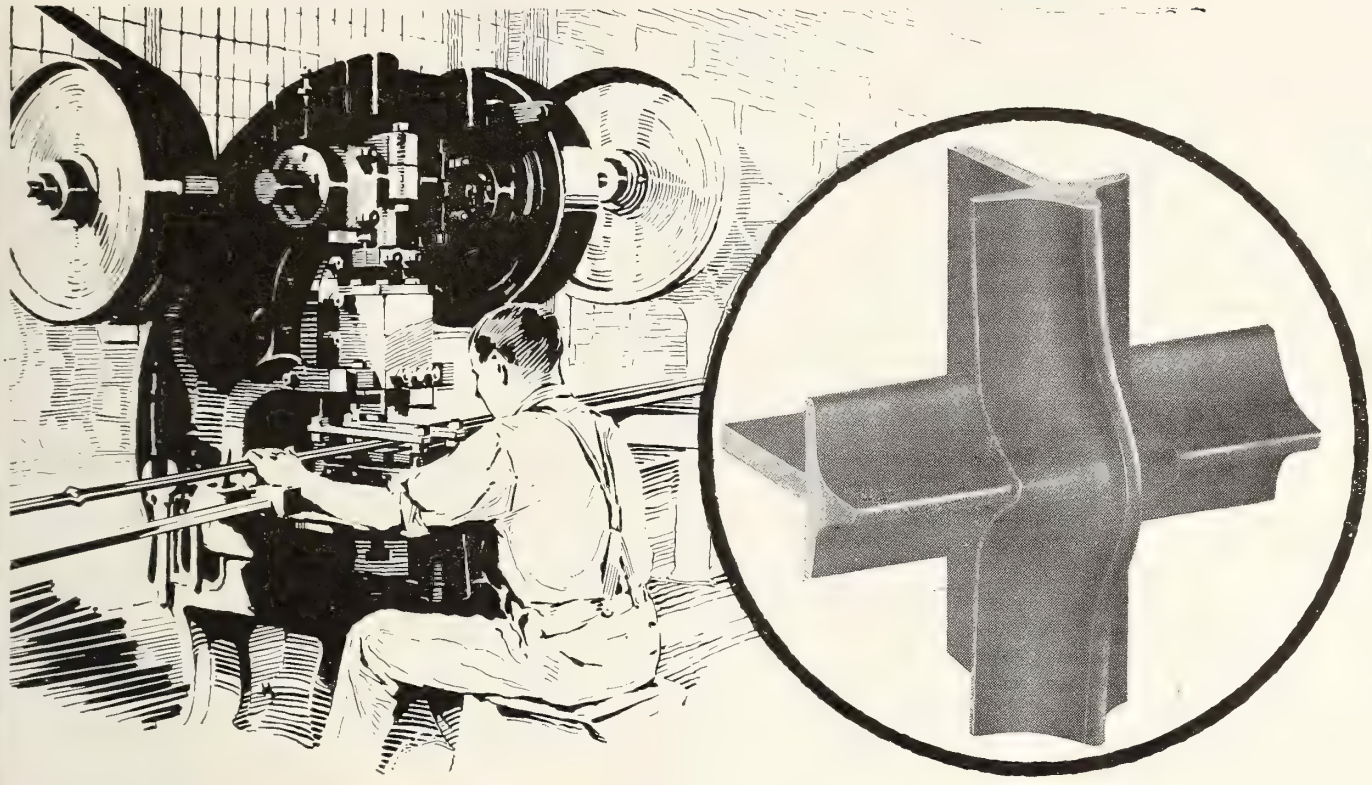
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Figure 1



Figure 2



Figure 3



Figure 4

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Figure 3 shows both bars assembled, ready to close the locking wing. Figure 4—The locking wing closed.

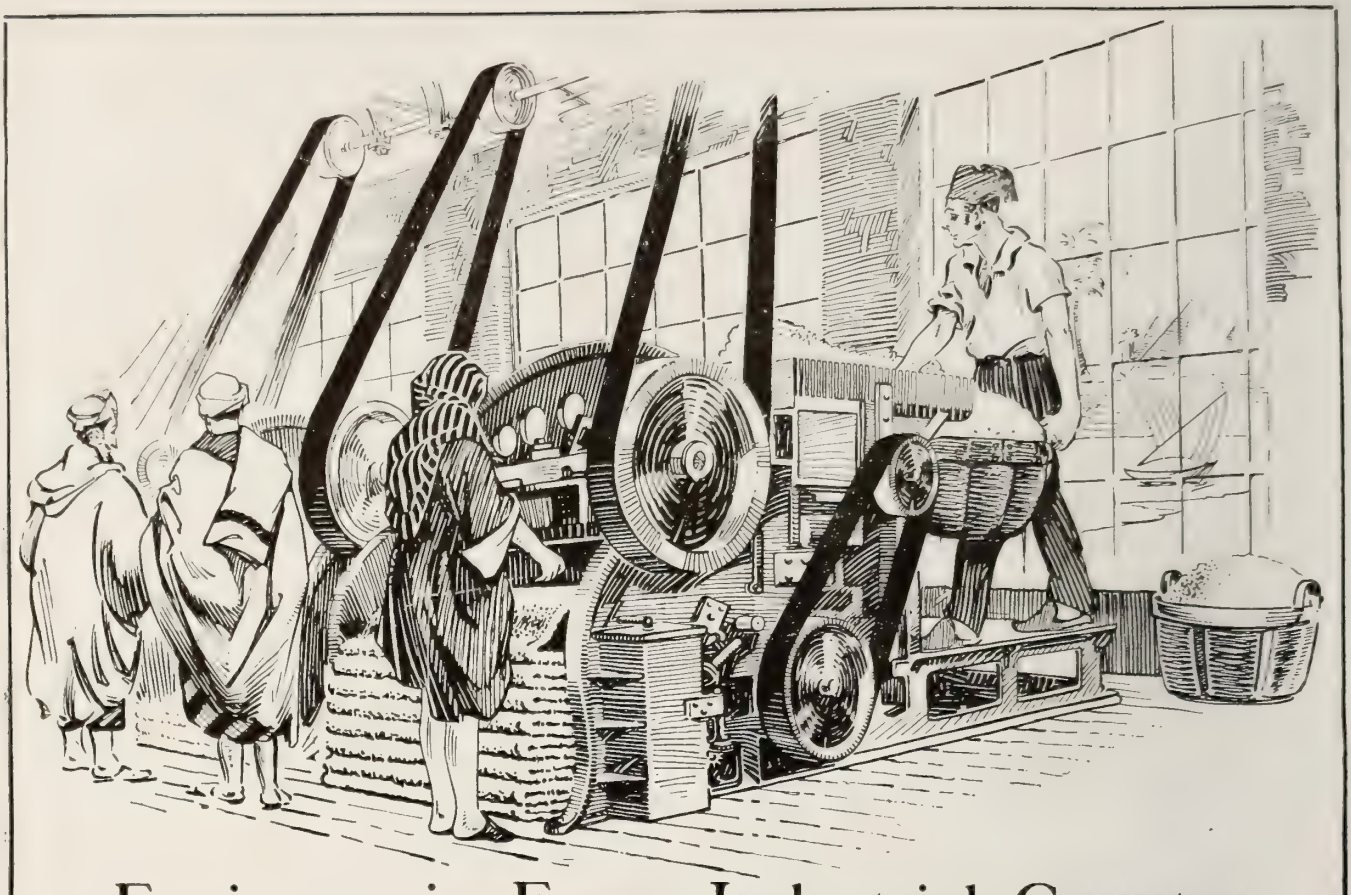
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Fenestra

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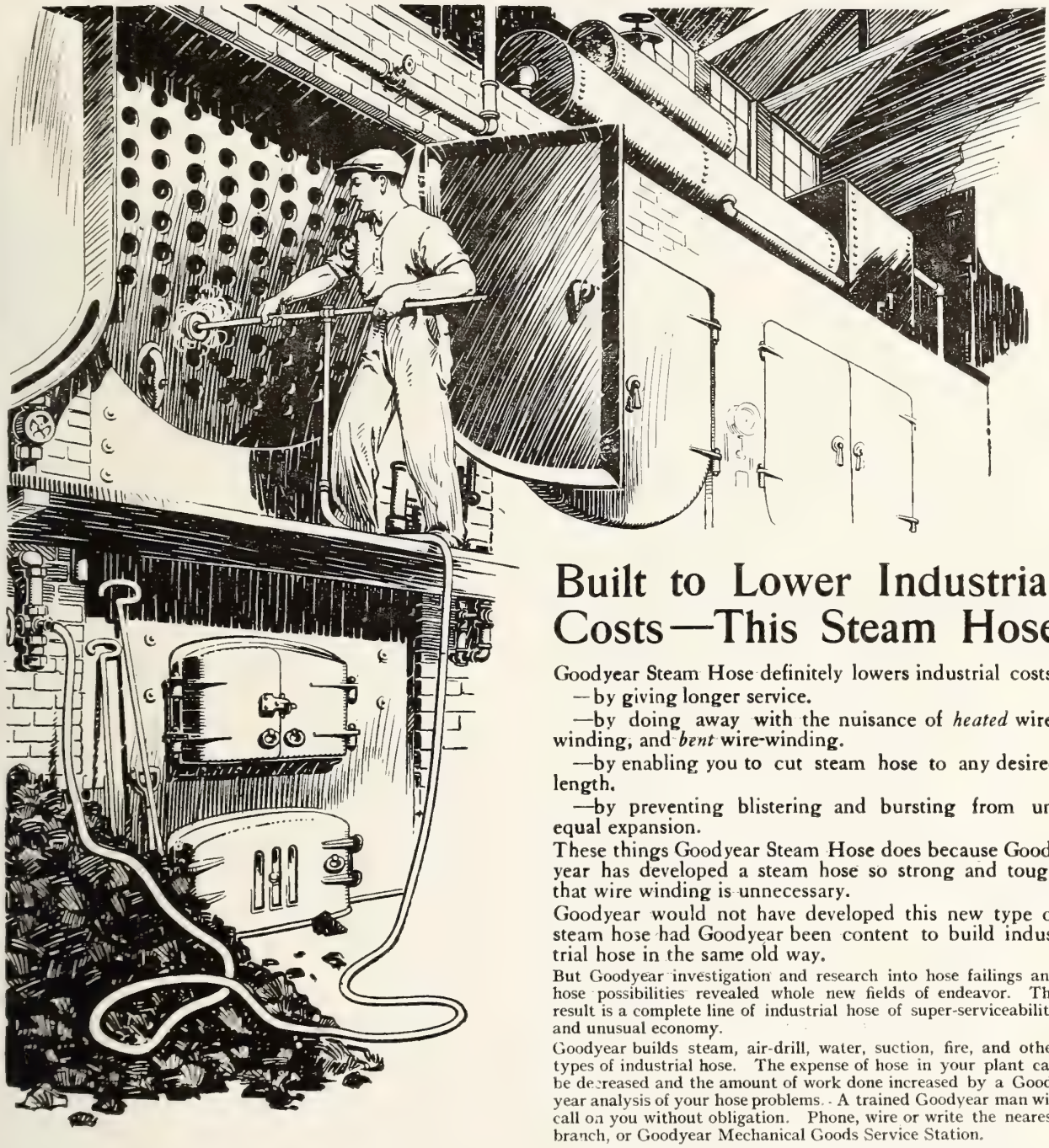
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—by doing away with the nuisance of *heated* wire-winding, and *bent* wire-winding.

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NITRE CAKE, SULPHURIC ACID

STEEL RAILS
Open Hearth Quality

Splice Bars

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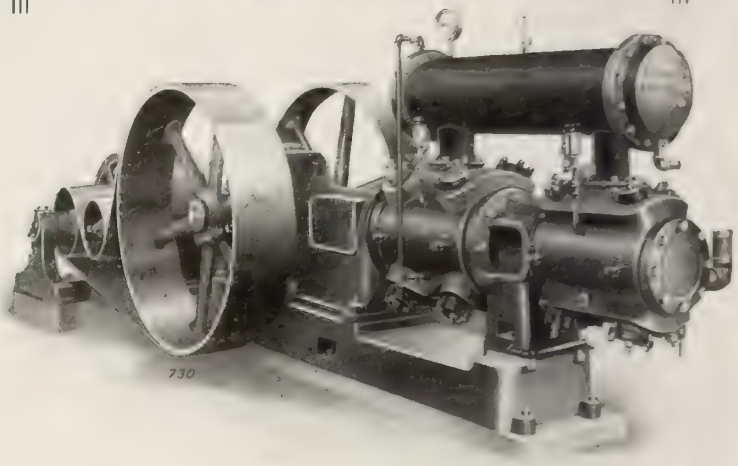
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Bessemer Spiegel

Algoma Steel Corporation
LIMITED
Sault Ste. Marie - Ontario

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Class "EL-2" Compressor with short belt drive

To the plant operating on electric power and in which the demand for air does not exceed 475 cubic feet per minute we offer our class "EL-2" Two-Stage Power Driven Straight Line Compressor, illustrated herewith.

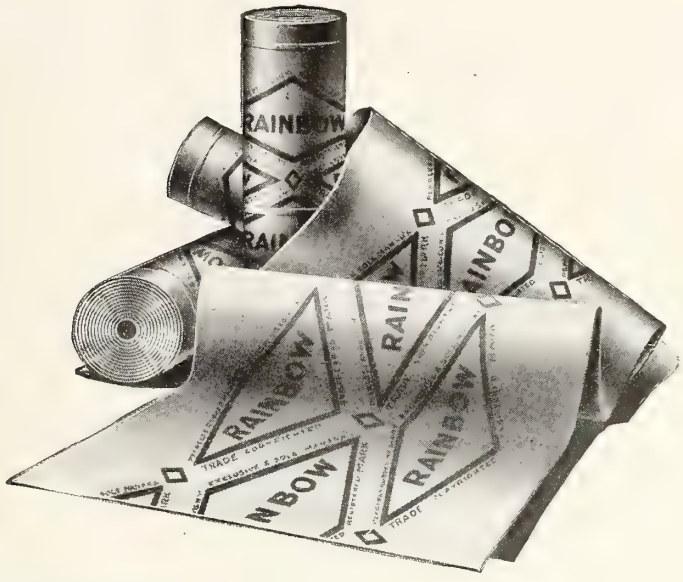
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Westinghouse

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The Turnover Toaster is a turnover toaster in more than one sense of the word.

A twist of the thumb and forefinger turns the toast over and presents the untoasted side of the bread to the heat. This, together with its neat, substantial design and the delectable toast it produces, makes it a "turnover" in the sales sense of the word also.

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STE. PHILOMENE SCHOOL, at Rosemont, Montreal, which is shown in the accompanying illustration, was designed for convenience and safety, and built for economy and permanence.

It is a typical example of the splendid modern school buildings that are found to-day in all the larger Canadian cities. And, like many such buildings, it is covered with a Barrett Specification Roof, laid under the supervision of our inspectors and guaranteed against all repair expense for 20 years by a surety company bond.

This bond may be obtained on any Barrett Specification Roof of 50 squares or larger, in any city of 25,000 or more, and in smaller places where our inspection service is available.

Our only conditions are that the roofing contractor shall be approved by us and that The Barrett Specification, *revised April 15, 1920,* shall be strictly followed.

Important Notice

The Barrett Specification Type "AA" 20-Year Bonded Roof represents the most permanent roof-covering it is possible to construct, and while we bond it for 20 years only, we can name many roofs of this type that have been in service for more than forty years and are still in good condition.

Where the character of the building does not justify a roof of such extreme length of service, we recommend the Barrett Specification Type "A" Roof bonded for 10 years. Both roofs are built of the same high-grade materials, the only difference being in the quantity used.

Full details regarding the Bonded Roofs and copies of The Barrett Specification free on request.

The Barrett Company LIMITED

MONTREAL TORONTO WINNIPEG VANCOUVER
ST. JOHN, N.B. HALIFAX, N.S. SYDNEY, N.S.

Barrett Specification Roofs

Bonded for 20 and 10 Years

Industrial Canada

ISSUED BY

The Canadian Manufacturers Association
INCORPORATED

Vol. XXI. TORONTO, NOVEMBER, 1920 No. 7

Editorial Comment

A Call to French-Canadians

IT is matter for satisfaction to observe the firm stand that has been taken by the press and people of Quebec on the tariff question. Our French-Canadian fellow-citizens have long been noted for their industrious habits. French-Canadian artisans have played an important part in the development of New England industries, and now that important industries are springing up all through Quebec, they are doing their share to make these a success. In fact, Quebec is making such progress, with its abundant labor resources and its plentiful supply of power, that other parts of the Dominion must look to their laurels.

During the tour of the Tariff Commission through the West, the newspapers of Quebec devoted considerable space to reporting the hearings. In fact, their reports often outdid those of Ontario newspapers in the completeness with which they were prepared. And in their editorial pages, with but few exceptions, strong support was accorded to the protective principle. What, for instance, could be more outspoken than this appeal of *L'Evenement*:—

"Do not let us commit ourselves to an alliance that is opposed to nature, in line with the enemies of that wise policy followed by Sir Wilfrid Laurier himself, who, during the fifteen years that he was in office, persistently maintained a customs tariff greater than that which exists to-day." After pointing out that there are advocates of protection all over Canada, even among the farmers of the West, *L'Evenement* proceeds to say:—"Among the advocates of free trade the egoistical idea of wholly subordinating the welfare of the Dominion to the whims rather than to the well-recognized interests of the wheat growers appears in full force. It is not only free wheat that these speculators demand; they want a radical change in our economic system, imbued with a mercantile Americanism far more than with Canadian patriotism. They are tired of having to reckon with Toronto, Montreal, Quebec, St. John and Halifax, a share of their commercial transactions. The heart of these traffickers does not lie in this country, but in the wheat pit of Chicago. Not being attached to Canada, they have no regard for a policy which has been the cause of the growth of magnificent towns along the length of the great lines of transport across the country. They do not want to wait for the days to come when Winnipeg will be larger than Minneapolis and Montreal a busier city than Chicago."

The Late E. G. Henderson

IN the death of E. G. Henderson, President of the Canadian Salt Co., Limited, the Association loses one of its best-beloved members. Few men taking an active part in the work of the organization won for themselves a higher place in the esteem of their fellows than did he. A gentleman in the truest sense of the term, his presence in any gathering always lent an air of distinction to the company, while his conversation was invariably informed and enlightening. He made and held friends, and very widespread was the regret expressed at his demise.

Mr. Henderson rose to the Presidency of the Association several years ago, and filled the office with ability and devotion. His interest, however, did not die out when his term expired. Though living many miles from headquarters, he continued to be a regular attendant at executive council meetings, and it is perhaps safe to say that no member of council has had a better record, all conditions considered, for attendance than he. He was that unfortunately rare person, a man who could be depended upon.

It is gratifying to INDUSTRIAL CANADA to be able to publish in this issue several tributes to the memory of Mr. Henderson contributed by colleagues on the Executive Council. These all indicate how sincere was the sorrow felt when the news of his death was despatched

from Montreal, and how high a place he held in the estimation of his fellow members. He has left behind him, for the emulation of the membership, a model of what true service to the Association should be.

Our Adverse Trade Balance

THE Dominion of Canada Bureau of Information in New York, which is under the direction of Col. John A. Cooper, makes interesting use of United States trade returns in showing the extent of Canada's trade with the Republic. It may be news to some to know that Canada is now Uncle Sam's second best customer, a position previously held by France. For the eight months ending with August the Dominion bought $100,000,000 more goods from the United States than did France. Great Britain is, of course, the largest purchaser of American goods, but even at that Canada's purchases are equal to fifty per cent. of those of the Old Country, while we buy twice as much as all the countries of South America combined.

Canada continues to be a larger buyer than seller in American markets. In August this country bought goods to the value of $89,244,247, but only sold $59,503,588 worth. For the eight months ending August, United States purchases from Canada were $363,687,617, an increase over 1919 of nearly $70,000,000, but her sales to Canada amounted to $667,588,481, an increase of over $220,000,000. The trade balance is on the wrong side, and that in spite of tariff, adverse exchange and other obstacles. It is clearly a demonstration of what would happen to Canadian industry were the importation of American manufactured products to be facilitated by a reduction in the tariff.

Praise from British Expert

BELITTLERS of Canadian manufactured goods, who can conceive that no good thing can come out of a Canadian factory, will have to pause and take notice when they hear that no less an authority than Professor Alfred Barker, of Leeds University, one of the foremost textile experts in the world, credits Canadian woollen mills with averaging up to the best of the Yorkshire mills. It began to glimmer on the minds of the doubters during the latter years of the war that not only were Canadian textile mills turning out goods more cheaply, but they were actually making better goods than could be imported. More recently witnesses before the Tariff Commission bore testimony along the same lines.

It is encouraging to hear Professor Barker, after a close personal study of the Canadian textile industry, give such unqualified praise to its standing. With regard to woollens, he says:—"Some few Yorkshire mills are better; many very much worse. The machinery employed in Canada is frequently up-to-date. Labor was obviously considerably treated. From four to sixteen automatic looms were being followed by a weaver according to the type of work being dealt with. Styles projected in Canada are often quite satisfactory, but developed a cloth structure. The color skill which plays such an important part in the Yorkshire and Scotch woollen trade is not markedly in evidence. This, however, would be one of the easiest difficulties to overcome if Canada seriously sets out to improvement on the excellent start already made by her pioneer manufacturers."

Professor Barker looks forward to a great development in the hosiery industry, in which Canadian manufacturers are pushing ahead with great enterprise. As for the cotton industry, he declares that it is a mistake to suppose that this industry is restricted in Canada by climatic conditions; in fact, he says there is a greater difference between the valleys and hilltops in Yorkshire as regards spinning atmosphere than there is between many Yorkshire and Canadian mills.

Alberta Manufacturers Protest Legislation

IT was surely reasonable ground for the manufacturers of Alberta to take before the Committee of Inquiry appointed to report on the Factories Act of the Province when they urged that Alberta should not be called upon to make innovations at the possible expense of local industries. As was pointed out in the brief presented by Mr. C. A. Pratt, Chairman of the Medicine Hat Branch of the C.M.A.: "Fair conditions cannot be different in different Provinces in connection with the same industries and the industries in one Province are subject to direct competition by the industries in another Province, with the result that any Province that seeks to embody restrictions which are not imposed in competing Provinces, works a great hardship not only on the manufacturers of the Province, but on the workers as well by driving work, which would otherwise be done in that Province, to other Provinces."

The manufacturers of Alberta are facing attempts in the way of labor legislation, which they feel are going to be prejudicial to the interests of industry in the Province. There is, for example, the effort to establish minimum wage legislation for adult male workers; the unusual provisions of the Factories Act with regard to shifts, and the regulations covering the employment of child labor, which are in advance of the other Provinces. While not hostile to any proposals making towards the betterment of industrial conditions, the Alberta manufacturers feel that it would be not only unfair, but prejudicial to their interests, if they were required to take the lead in such matters, especially when national labor conferences have laid down the principle that progress should be uniform throughout the Dominion.

This point was brought out clearly by Mr. C. G. Robson, Chairman of the Edmonton Branch of the

C.M.A., when he appeared before the Commission. He declared that "The Canadian National Conferences have been unanimous in recommending that all Provinces of Canada should proceed along similar lines and enact uniform legislation. . . . Labor legislation should not as a rule embody special features which have not commended themselves as the best practice to workers' associations and employers' associations as a whole, and particularly in a Province like Alberta, where industry is very gradually coming into its own. Employers should not be subject to restrictions which are not even asked for by organized workers in other provinces and countries."

More Overseas Visitors are Coming

OF recent months there has been quite a noticeable increase in the number of visitors to the Association offices from the overseas dominions and foreign countries. The Commercial Intelligence Department is becoming more widely known as a clearing house of information about Canada and its industries, and business men coming to the Dominion from other countries with the object of forming connections with Canadian manufacturing and commercial establishments are naturally gravitating towards this Department. It is gratifying to know that the work of the Department is proving of value, not only to the men who come from overseas seeking information, but to those Canadian companies with whom they are placed in touch.

The visitors are coming principally from South America and the West Indies, with a small number from Australia and New Zealand. It is significant that the South Americans are beginning to look to Canada as never before for their requirements in the way of machinery, flour, textiles and other manufactured goods. They all report that Canadian goods are wanted, and that a receptive market awaits our products. Let it be hoped that manufacturers will take advantage of the markets opening up for them, and will do nothing, either through neglect, indifference or carelessness, to hinder the growth of South American business.

Housing Conditions in Canada

IT is a disquieting picture that is painted by *Social Welfare*, the official organ of the Social Service Council of Canada, in its special housing edition of October 1. Gathered together in this number are a series of reports prepared by medical health officers and social service workers in the principal cities of the Dominion from Sydney to Vancouver. Their combined testimony goes to show that the housing shortage is reaching almost intolerable proportions, that there is apparently no relief in sight, and that serious results will accrue to the social and physical welfare of the nation if steps are not taken to remedy the unfavorable conditions.

The discouraging feature of the whole situation seems to lie in the futility of the remedies already suggested. We read of the failure of the Housing Commission in Montreal to achieve results, and of the lack of support accorded to the efforts of the Housing Commission in Toronto. Practically all schemes attempted so far to provide housing, other than by ordinary methods, seem to have failed. And the ordinary methods are being neglected because of the high cost of building.

Social Welfare, after painting the picture of slum conditions prevailing in our cities in lurid hues, declares that even revolution in its full physical significance would be justified in the light of such revelations. It appeals for toleration, understanding, sympathy and co-operation. At least one writer urges manufacturers to take a personal interest in the housing of their employees and by the creation of garden cities and the like to do something worth while towards the solution of the problem.

The Supply of Industrial Alcohol

A LETTER has been received from the Canadian Industrial Alcohol Company, Limited, Montreal, directing attention to the editorial appearing in the October number of INDUSTRIAL CANADA, headed, "The Shortage of Industrial Alcohol." The letter expressed surprise that we should have represented that there was a shortage of supply, and made the statement that the Canadian Industrial Alcohol Company had plenty of alcohol to fill requirements and were also in a position to give prospective buyers prompt and efficient service.

They submitted the following as the true situation concerning the supply of industrial alcohol in Canada:

"1. There is no shortage of industrial alcohol in Canada at the present time, and there hasn't been any shortage within the recollection of the management of this Company or its predecessor.

"2. While it was difficult to secure raw material during the war, and on occasions since the termination of the war, nevertheless we have always had sufficient alcohol on hand to take care of our customers' needs.

"3. The capacity of our distillery is approximately 500,000 imperial proof gallons per month, or 6,000,000 gallons per annum. The total consumption of alcohol in Canada for methylating and industrial purposes does not exceed 2,000,000 imperial proof gallons, so that our distillery alone can take care of the entire needs of the country for a year's time by operating to capacity for a period of only four months.

"4. While there has been an ample supply of newly made alcohol for industrial purposes, there has been a shortage of Canadian manufactured two-year-old alcohol for medicinal purposes since the fall of 1919. This shortage was caused by the restricted manufacture of alcohol during the war, when it was found necessary to conserve grain. The shortage still exists and, as a consequence, large quantities of such alcohol has been, and is now being, imported into this country, chiefly from the United States and Cuba. The law requires that alcohol manufactured in Canada for this purpose

must be aged for two years before being sold, but there is no such restriction on alcohol manufactured in any other country, when imported into Canada. As a result of this one-sided law the Canadian manufacturer of alcohol is prevented from selling in this country what any foreign manufacturer is permitted to sell. This strange anomaly was recognized by the Canadian Government during the last session of Parliament by amending the law so that the Governor-in-Council might at any time suspend the operation of this law. Although four months have elapsed since this amendment was passed no relief has so far been given the Canadian manufacturers in this respect by the Government, however, the matter is now under consideration, and it is expected that some action will be taken in the immediate future."

So far as INDUSTRIAL CANADA's editorial references to the supply of alcohol were concerned, it should be explained that they were based entirely on information issued by the Advisory Council for Scientific and Industrial Research, and were not the result of any personal investigation of the subject. We are glad, therefore, to give our readers the information supplied by the Canadian Industrial Alcohol Company, Limited, which throws a much more encouraging light on the situation.

The Power Shortage in Central Ontario

DURING the past month or two manufacturers in the Central Ontario District have been experiencing a serious shortage of power, which has had the effect of interrupting and delaying industrial operations to a most irritating extent. The trouble has extended to all points using power supplied from the Central Ontario or Trent Valley system of the Ontario Hydro-Electric Power Commission, and has been particularly apparent in the larger industrial centres like Peterborough, Belleville and Oshawa.

Correspondents of INDUSTRIAL CANADA in Peterborough and Belleville bear testimony to the seriousness of the situation. Writing from the former point, a prominent manufacturer says:—"Our industries are closed every fourth day, which, as you will appreciate, is a very decided handicap on some of them, particularly the milling companies—the Peterborough Cereal Co. and the Campbell Milling Co. The textile industries have also been hit hard, as well as the metal working shops." A Belleville manufacturer adds:—"Our local industries were entirely cut off from using power for over a week, and have not had their full supply of power for about a month. Companies in this district suffered some loss by reason of goods sold that could not be delivered for lack of power and a falling market, hence cancellations."

The basic cause of the trouble appears to have been the unprecedentedly low water in the Trent River basin. A heated controversy has arisen, however, between the Hydro-Electric Power Commission on the one hand and the officials of the Dominion Government on the other hand, as to the regulation of what water is coming down the river. The Hydro claims that water is being held back unnecessarily by the Government, and that if a normal flow was permitted there would be no power shortage. To this contention the Government officials reply that they are letting down as much as can safely be allowed in order to ensure a sufficient supply during the winter months. An hydraulic engineering specialist sent to report by the Government gives it as his opinion that the water supply has been judiciously handled, and that the storage has already been drawn upon in favor of power up to a point beyond which it was inadvisable to go.

The Peterborough Branch of the C.M.A. held several meetings during the course of the trouble, at which representatives of both the Dominion Government and the Hydro-Electric Power Commission were present. The situation was thoroughly discussed, but neither side seemed willing to agree that the other was right. Engineers of the Hydro Commission put in a plea that the Dominion Government should allow one-tenth of a foot per week drainage in addition to the present flow, which would then enable them to come back to par on power production. The Government, however, took the position that if they did this the lake storage would be lowered to such a point that the winter and spring would hardly be able to bring it back to normal, and there would be a more serious power shortage later on.

At one time the Government offered to let down the one-tenth of a foot per week, provided all the manufacturers and other power users signed a release to the Government for any damages that might ensue. This proposal was not favorably considered, but later on the offer was modified to cover only damages that might be experienced by the power users themselves. This was accepted, and a petition was signed and forwarded. A gradual improvement in the situation, however, has altered the outlook, and it may not be necessary to resort to this method of relieving the shortage.

With the merits or demerits of the respective contentions, it is not our place to deal. We are aware that power users in the affected area are inclined to blame the Hydro-Electric Power Commission for contracting to sell more power than they are able to deliver in times of drought such as have recently been experienced. Be this as it may, it would certainly appear to be the part of wisdom to make every possible allowance for a recurrence of such stringency. A conservative policy in this regard is most desirable in the interests of steady operation of industry.

Power troubles, however, are not confined to the Central Ontario District. They are province-wide and apparently conditions will be worse before the corner is turned. The Power Committee of the Ontario Division is taking action and has already circularized the membership in the province with a view to obtaining all possible data on the situation.

A Devoted Member of the Association who Left his Mark on its Work

AN APPRECIATION

WIDESPREAD regret was felt throughout the membership of the Association when news was flashed from Montreal that Ernest George Henderson, president and general manager of the Canadian Salt Co., Limited, Windsor and an ex-president of the C.M.A., had passed away. His death removes one of the most devoted members of the organization and a citizen of Canada who had few peers. The cause of his demise was pneumonia, following a preliminary operation previously at the Royal Victoria Hospital for the removal of a supposed growth at the base of the brain. The operation was regarded as successful and improvement was marked, but unfortunately pneumonia set in and despite all efforts to save his life, death ensued.



The late Ernest George Henderson

Born Sept. 14, 1858, Died Oct. 13, 1920

From the columns of the *Windsor Sun*, the following account of the late Mr. Henderson's career is extracted. He was born in Holywood, County Down, Ireland, on September 14, 1858, the fourth son of the late Rev. Henry Henderson and S. Jane Henderson. He was educated in Hillbrook School and College, Belfast. Later he became an articled pupil to the engineer of the Belfast and County Down Ry., continuing this work for four years before his appointment to the position of assistant engineer of the Ulster division of the Great Northern Railway of Ireland. In 1883 Mr. Henderson came to Canada and was engaged on surveys and construction work on the main line of the C. P. R., and on re-measurement of certain sections of that railway north of Lake Superior where disputes had arisen between the C. P. R., and some of the contractors. In 1888 he was appointed assistant engineer of the C. P. R. at Toronto and later resident engineer at London. Under Mr. Henderson's direction the C. P. R. line between Windsor and London was constructed. Mr. Henderson left the employ of the C. P. R. in 1893 to superintend the construction of the plant of the Windsor Salt Works which was organized about that time by Sir William Van Horne and his associates. Mr. Henderson became, from the outset, general manager of the company and later was elevated to the presidency. Under his personal direction, the Canadian Salt Company, as the firm was called later, has become the greatest industry of its kind in Canada. With the salt plant in Windsor and the large chemical plant in Sandwich for the manufacture of caustic soda and bleaching soda by the electrolytical process (the only plant in Canada which does such work) the Canadian Salt Company has grown steadily—a lasting monument to the energy and ability of its president and general manager.

In spite of his heavy business responsibilities, Mr. Henderson found time to devote a great deal of attention to other interests. For many years he has been active in the affairs of the Canadian Manufacturers Association and served as president of that body in 1916. At the time of his death he was a member of the C. M. A. executive. He was for several years a member of the Windsor Board of Education and served as chairman and was at one time president of the Windsor Board of Trade and later a member of the executive of the Border Chamber of Commerce. As a member of the Essex Health Association, with the late Dr. Smith, former collector of customs, Mr. Henderson shared a large measure of the credit for the construction of the tuberculosis sanitarium at Union-on-the-Lake, destroyed by fire some months ago. Mr. Henderson was an Anglican and for more than twenty-five years sang in the choir of All Saints Church. He was also president of the choir. For the same length of time he was a delegate to the provincial and general synods of the church and a member of the executive committee. He was also a member of the committee named to compile a new hymn book and of the committee appointed for the revision of the prayer book. Only a few days ago Bishop Williams made the declaration that Mr. Henderson was of more value to the Anglican Church than any other man in Canada, bishops and rectors not excepted.

Mr. Henderson was intensely patriotic and devoted to the furtherance of every cause calculated to advance the interests of the British Empire. In the Sportsmen's Patriotic Association and the Soldiers' Aid he gave splendid service. The Children's Aid Society is another organization in which he was deeply interested. He was a delegate of the Chambers of Commerce of the British Empire held in Montreal. He was a member of the Canadian Society of Civil Engineers, the Institute of Civil Engineers of Ireland, the American Society of Mechanical Engineers and of several clubs. In politics he was a prominent Conservative.

Mr. Henderson had two sons, both of whom gave their services to the Empire. Lieut. Maurice Henderson, the younger,

was killed in action in 1916. Captain E. Brian Henderson, of the Royal Air Force, died of influenza in England in November, 1918. Captain Henderson's body was brought to Windsor for burial.

Mr. Henderson made a trip abroad in May of this year and on that occasion visited the grave of Lieut. Maurice Henderson in Belgium. He appeared, on returning, to be in his usual excellent health. About the middle of June, however, he was attacked with severe headaches and periods of dizziness. His condition was not considered serious and he continued at his office for some time. Later his illness became pronounced, ending eventually in his removal to the Montreal hospital.

Tributes from Former Associates:

The universal esteem in which Mr. Henderson was held is attested by the warm expressions of regard that have been received from former associates in the Executive Council of the Association.

President McKinnon

J. S. McKinnon, this year's president, writes: "The industrial life of Canada is poorer on account of the passing away of Mr. E. G. Henderson. He was a man of wise counsel and sound judgment and was a man among men. On different occasions I have seen him interject a word of wisdom and turn the subject of debate into proper channels when otherwise a complicated situation might have arisen. He had friends from the Atlantic to the Pacific who will miss him, and although his death will be greatly lamented, he left his imprint upon his day and generation, and his memory will be held in the highest respect and esteem."

Vice-President Fisher

W. S. Fisher, first vice-president, writes, "It is many years since I first met Mr. Henderson in connection with the work of the Canadian Manufacturers Association, in which he took such a keen interest. I always admired him for his out-spoken frankness as well as his uniform courtesy and kindness of heart and his passing out will be a great loss to our Association. My sincere sympathy goes out to his family circle in the great loss which they have sustained."

Vice-President Shaw

J. R. Shaw, second vice-president, says: "I was unaware of the fact that Mr. Henderson had been seriously ill so that the press announcement of his death in Montreal was a distinct shock to me. How we shall miss him in the Executive of the C. M. A.! His courage, his transparent honesty of purpose, his energy, his vision, his optimism, his ability, his loyalty were an inspiration to all those who came in touch with him.

"The late Mr. Henderson was an Irish gentleman with all that this implies; a captain of industry, a leader of men; a stout and vigorous churchman, and the father of gallant sons who died for their country in the late war. His memory will long be cherished by his friends who were legion, among whom I am glad to say I was numbered."

Ex-President Howard

T. P. Howard, ex-president of the Association, expresses his feelings in the following way: "'He has left his mark.' I know of no more appropriate epitaph to the late E. G. Henderson than this. Past President Henderson was, as every business man in Canada who came in contact with him knew him, the personification of commercial courtesy, courage and comradeship. Of his efforts on behalf of the Association little need be said. There he has doubtless left his mark more strongly imprinted than anywhere else, unless it be upon the hearts of his many friends

"During his regime of office the roots of the Association sank deep and strong into the soul of our commercial life. As a past president, I may say, I felt the strong influence of his work whilst I was in office. The end has come as it must to us all. The roll will be called hereafter and he will be missing, but his spirit in the Association lives on and our supreme tribute in very truth, I think, must be, 'He left his mark; he was a man.'"

Other Prominent Members.

S. R. Parsons, British-America Oil Co., Limited, an ex-president of the Association, sends the following tribute: "In the passing of Mr. Henderson Canada has lost one of her greatest industrial leaders and the Canadian Manufacturers Association a fearless and ardent champion. Well educated, refined, clear-headed, wise in counsel, strong in execution, fair in judgment, broad-minded in his views and relationships, with a high sense of honor and responsibility, he stood out as a prominent figure among the business men of Canada. He left his impress upon his generation and the world was enriched by his contribution towards its development and betterment. His splendid personality leaves a blank that will not soon be filled."

P. W. Ellis, another ex-president of the Association and active for many years in its affairs, writes: "I was greatly shocked to learn of the death of our comrade, Mr. E. G. Henderson, who until so very recently, appeared to us all, strong, healthy and vigorous as always. The death of no member of our organization could be more deeply mourned than that of our dear friend, an earnest worker, fearless debater, most considerate to those who held different views, who made a deep study of all matters of importance coming before our organization, always active, a Canadian through and through. Many of us will remember his splendid address at the annual meeting held in Hamilton, upon our duty to the Empire and the duty of our young people to respond to the call to arms, and to think that address was followed by the loss of his two boys was touching in the extreme.

"We will all carry with us the most pleasant memories of his loyalty to our organization and the spirit of camaraderie that was always present with him. Our hearts go out to his family at this trying moment."

Hon. E. J. Davis, Davis Leather Co., Limited, Newmarket, for many years a member of the Executive Council, writes: "I was shocked a day or two since to notice in the public press the death of E. G. Henderson, Esq., of Windsor, to most of us, I think, quite unexpected. He was still in the prime of life with comparatively a number of years of usefulness before him. He was a personal friend and colleague of mine for many years in connection with the Canadian Manufacturers Association. A man of broad business experience, conscientious and straightforward in all his methods, he inspired the utmost confidence in those with whom he was associated."

J. F. Ellis, ex-treasurer and a veteran member of the Association, says: "I considered Mr. Henderson one of the outstanding ex-presidents of our Association. His keen judgment and thorough appreciation of his position as president was a very valuable asset to the C. M. A. From my many interviews with him and active participation in the work of the Association, I found him an extremely lovable man whose advice and judgment had very great weight in every department of the Association's work. I feel that I have lost a personal friend in the death of Mr. Henderson."

J. H. Sherrard, another past president of the Association, writes: "The death of Mr. Henderson is a very great loss to our Association, and will be keenly felt by every member who has had the good fortune to know him personally. A gentleman of the old school; a man of high honor, splendid courage, excellent judgment and very fine courtesy."

Synopsis of Proceedings before the Tariff Commission in Western Canada

THE OCTOBER HEARINGS

Based on the Official Report

In the October issue the report of the hearings held by the Special Committee of the Dominion Cabinet appointed to hear representations in regard to the Canadian customs tariff was brought down to the end of September. In this issue we complete the report as far as the hearings in Western Canada are concerned. Our report is a condensation of the official stenographic report of the proceedings, and brings out the chief points made by the various witnesses.

LEAVING Nelson, B.C., where the fruit growers and local industries of that portion of British Columbia placed their views before the Commission, the Commissioners proceeded to Trail and there inspected the plant of the Consolidated Mining & Smelting Co., Limited. A session was then held in order to hear representation of officers of the company and members of the local Board of Trade.

TRAIL

October 1.—J. J. Warren, president of the Consolidated Mining & Smelting Co., Limited, appeared on behalf of his own industry. Mr. Warren dealt first with lead. The company's plant, he stated, had a capacity of 100 tons per day of refined pig lead, which is just about the quantity consumed in Canada in normal times. Prior to the war there was a duty of 15 per cent. This was supplemented until 1919 by the 7½ per cent. war tax. The U. S. tariff was 25 per. cent. In 1919, the 15 per cent. duty, plus the war tax, was removed and a specific duty of one cent per pound was imposed. The immediate reason for the change was competition from Mexico, which rendered an ad valorem duty useless. At present the Canadian lead producer was seriously menaced by Spanish, Belgian and German lead brought in from Great Britain.

Canada needed as much protection as the United States where lead plants are larger and costs are lower. The real difficulty was the exchange situation. Unless there was more protection or an embargo, Canadian producers would not be able to compete. A conference was suggested between the company's officials and representatives of the lead metal trades before definite proposals should be submitted.

Consumption of Copper

The normal consumption of copper in Canada in the form of ingots and wire rods was about 18,000 tons per annum. Of this about 6,000 tons are in form of ingots and 12,000 tons wire rods. While war was on, the company was induced by the British Government to install a copper refinery with capacity of twenty tons per day. This was never, and could not be, operated at a profit, because of small capacity. To supply Canadian consumers at a reasonable price it was found necessary to increase capacity to between sixty and seventy tons a day. Contracts were entered into with the Canada Copper Corporation under which railway and power lines were built and smelter enlarged.

Tariff on Copper

Prior to 1919 there was no tariff on refined copper, but the war tax of 7½ per cent. applied. At the 1919 session a duty of 1½ cents a pound was imposed. No duty, however, was collectable on wire rods imported by manufacturers who drew them to wire in their own plants. Unless an adequate duty was imposed, it would not be possible for the company to produce wire rods and supply the Canadian demand because of the limited capacity of the plant as compared with U. S. plants. There were five wire mills in Canada, consuming 12,000 tons of rods. The tariff of 1½ cents per pound should be imposed on both ingot copper and wire rods but, in view of the cancellation of the 7½ per cent. war tax, the duties on fabrication of copper should be revised and it was therefore suggested that a conference should be held.

The normal consumption of zinc was about 10,000 tons per annum. The capacity of the company's zinc plant was in excess of 25,000 tons per annum. The plant was established on the request of the Imperial authorities to provide high grade zinc for munition purposes. At the close of the war, capacity was 15,000 tons but, to get costs down, it was increased to 25,000 tons. The company had therefore to sell in the open markets about 15,000 tons. Its advantage lay in the grade of its product, though this amounted to very little in practice. As a large part of world consumption was in sheet form, the company proposed to put in a zinc rolling mill and asked for adequate protection to be afforded on the production of zinc in this form. In view of all the circumstances, the company felt that a bounty should be voted it in respect of foreign business. Foreign exchange was also a detrimental factor and some further measure of protection should be extended on that account. A limited embargo was also suggested.

Increase in Freights

The recent increase in freight rates operated very disadvantageously against the company. In regard to British and European competition the increase was, to the extent of the increase, a direct contribution from the company to the railways, because no corresponding increase in selling prices could be made. The company was also under a handicap as regards rates from New York and St. Louis. The difference in rates in favor of American shippers was now over ½ cent per pound.

The company, said Mr. Warren, was the only Canadian producer of refined lead, refined zinc and refined copper. It also produced refined gold, and silver, bluestone, fluorspar and both sulphuric and hydro-fluo-silicic acids. It employed directly between 2,000 and 2,500 men and indirectly as many more. It owned several mines and mining claims and a power and light company. The company's ore reserves justified the expenditure of large additional sums of capital, provided the domestic market could be protected on a reasonable basis.

Fluorspar Industry

Mr. Warren concluded with a short memorandum on fluorspar. The company had spent $250,000 in developing a large deposit under the 7½ per cent. war tax. Now there was no protection. At least the same duty as was applicable in the United States should be granted them.

At the conclusion of his address, Mr.

Warren was questioned at some length by Sir Henry Drayton on various phases of the company's business, including the effect of freight rates.

Influence of Smelter

Noble Binns, president of the Trail Board of Trade, asked leave to present a memorandum prepared by the Board. This was read by T. A. Robley, secretary. It showed how serious would be the setback to Southern British Columbia were anything done to injure the business of the Consolidated Company. While only from 2,000 to 2,500 men were employed directly at present, the people dependent upon the successful operation of the company were nearly 20,000. The future development of the mineral resources of British Columbia was largely bound up with the industry.

The memorandum referred to the fact that the company did not earn excessive profits during the war, but that there was an actual impairment of the profit and loss balance. It pointed out that the industry had been somewhat dependent upon Government encouragement; that entirely new processes had been evolved, and that it was highly important that it should be developed and carried out indefinitely.

The memorandum concluded with a brief sketch of the history of the industry. While in the aggregate the plant was not a large one, no less than five separate metals were being produced, and the natural development was to enlarge the production of each until the operations might approximate in size to the highly protected United States plants.

Workmen's Views

Alexander Balfour, a member of the Smelter Co-operative Committee, backed up Mr. Warren's request for protection, claiming that it would not be fair to the men, who had not been paid standard wages during the war, and who had regarded that as their contribution, if any action was taken by the Government that would be detrimental to the industry.

J. A. McKinnon, member of the Trail Board of Trade, spoke as a working man and miner, claiming that the entire country depended on the successful operation of the industry, and the successful operation depended entirely on whatever protection the Government gave. The shutting down of the industry would paralyze the country.

"I am a Canadian, and proud of the fact," said Mr. McKinnon, "and I believe if Canada seizes the opportunity to protect industry, no matter what industry it is, there is no reason to prevent us becoming one of the greatest countries in the world."

Lorne Campbell, representing the Rossland Board of Trade, showed how dependent Rossland, with its gold and copper mines, was on Trail. He also referred to cheap power, which was a great advantage in treating low-grade ore, and explained how important it was from the standpoint of lead production that zinc production should be encouraged. The Slocan mines were all shut down because they had turned zincy. Encourage the zinc industry and the Slocan country would soon come back.

CALGARY

October 4.—The Commission met in the Council Chamber, City Hall, at 10 a.m. George Lane presented a statement on behalf of the Western cattle industry. Its purport was to show, by means of tabulated figures, that the Canadian cattle industry suffered losses amounting to millions of dollars annually through not being able to get into the United States prior to 1913, and that since then, with an open market, Canadian range cattle have repeatedly established new price records in the United States markets. On being questioned, Mr. Lane admitted that he had not been bothering about other export markets, and now the American market was going off.

Price of Cloth

William H. Berkinshaw, director and manager of the W. R. Brock Co., corroborated the evidence presented by Mr. Stone of Vancouver with regard to the prices of Canadian textiles in comparison with imported textiles. He showed that imported woollens from Huddersfield, with about 40 per cent. cotton, cost $4.76 f.o.b. Calgary, while all wool goods from the Paton Mills, Sherbrooke, cost $4.10 f.o.b. Calgary.

William Georgeson, Tuxedo Coffee and Spice Mills, Limited, presented a brief on behalf of the Calgary Branch, C.M.A. It showed that in 1900 the city had 10 manufacturing establishments; in 1915, 69; in 1918, 228, and to-day, approximately 240. In 1905, the investment was $2,000,000; to-day it is over $30,000,000. In 1900 there were 307 factory employees; in 1918, 4,225. In 1900 the output was valued at a little over $500,000; in 1918 it was over $31,000,000. There were in the Calgary district valuable deposits of coal, iron, clays, glass sands, talc, phosphates and other economic minerals. With increased population, the development of these resources would be warranted.

The brief dealt with the free trade argument, showing that, if universal free trade was adopted, manufacturing would be done in the cheapest markets. Tariff for revenue only had been tried in Canada from 1873 to 1879, and had proved to be a failure. Protection had at least given Germany a commanding position in many lines.

Calgary Metal Trades

R. P. Costello, Union Iron & Foundry Co., Limited, presented a statement on behalf of the metal trades, including five companies. These companies have a capitalization of $258,425; they employ 210 persons, and in August had a payroll of $29,845. Eight hundred and forty people are dependent on the industry. The territory served extended west to Golden, B.C.; south to the border; north to Edmonton, and east to Manitoba. The continued existence of the firms was necessary not only for the preservation of the capital invested, but also that the needs of the people might be expeditiously and economically served.

Cost of Tractor Gears

F. L. Irving answered a series of questions by Sir Henry Drayton relative to the cost of master gears for tractors made in Calgary and imported. This went to show that the Calgary manufacturers saved the farmer money on his parts. Mr. Irving further showed how steel shafting and mild steel could be bought cheaper from Redcliff, Alta., than from St. Paul.

In the absence of R. J. Hutchings, Mr. Georgeson presented a brief on behalf of the manufacturers of saddlery, harness and accessories. The remarks referred to the Calgary Saddlery Co. and the Great West Saddlery Co. Employees numbered 195; with dependents, 780 persons were connected with the industry. Thirty years ago 50 per cent. of the saddles and harness used in Western Canada came from the U.S. To-day, over 95 per cent. of these commodities are made in Canada. This was due to the protection given by the tariff. Prices in Alberta were no higher than for competing products from the United States laid down without duty. Should the tariff be removed, they would at once confront the competition of the larger American houses, with whom they could not compete.

Advocated Free Trade

R. J. Deachman, editor of the *Westerner*, appeared as a straight advocate of free trade. Taking the case of the Ford car, Mr. Deachman laid down the proposition that while an industry might be established by virtue of the protective tariff, the cost of establishing that in-

dustry might be so great that the country would be better off without it. The Canadian Ford industry, he stated, had made immense profits. This year it produced 60,000 cars, of which 45,000 were sold in Canada. These cars cost Canadian purchasers $7,425,000 more than they would have paid had there been no duty and they had bought American cars. Mr. Deachman figured that, in order to pay the excess price, it would take 15,000 people working all the time, and turning in their money to the Ford Co., in order to pay that excess price.

Attacks Shoe Industry

Mr. Deachman next singled out the shoe manufacturing industry, pointing out that for every dollar of capital invested in 1900, $1.68 of goods were produced, whereas in 1918 only $1.40 of goods were produced. This he attributed to watered stock. He also referred to the fact that the number of employees between 1900 and 1918 had only increased by from 200 to 300 people, which he contended was not a very good example of what protection can do in building up an industry.

With regard to wages, the witness next made the proposition that in the shoe industry, between 1900 and 1917, the workman was able to buy back about 4 per cent. less of the product he produced. This he claimed was largely due to the fact that under a protective tariff industries were becoming more fully consolidated, and were able to dominate labor. He admitted that there were other factors.

On the subject of dumping, Mr. Deachman thought that the American manufacturer would not go far in this direction because it would react on his own market. His evidence in this connection was questioned by Sir Henry Drayton. Mr. Deachman further dealt with some statements in Mr. Findley's brief on the agricultural implement industry, and went through the manufacturer's statement, making out various statements for general comment. Cross-examined by Sir Henry Drayton, he exhibited much ignorance as to actual business experience.

Stockman's Views

W. F. Stevens spoke for the Stock Brokers' Protective Association, which represents the larger operators in the live stock business in Alberta. The membership consists of 210 stockmen, holding an average of 490 head of cattle and 105 head of horses. He presented a resolution passed last July asking for the free movement of cattle and sheep between Canada and the United States.

George H. Ross, lawyer, Calgary, contended that Governments in Canada were hurting the country by the imposition of a protective tariff; that protection does not help to develop any of our natural resources; that the tariff is of no benefit to the workingman.

Vindicates Industry

S. Roy Weaver, in charge of the Investigation Department of the Canadian Reconstruction Association, presented a statement in reply to Mr. Deachman's criticism of the boot and shoe industry, claiming that protection had been vital to the industry; that the latter had made substantial progress under a protective tariff, and that the interests of thousands of workers and their dependents were closely related to the welfare of the industry.

H. W. Wood, president of the United Farmers of Alberta, next presented a statement. His first proposition was that each industry should be recognized strictly according to its relative importance to the whole. His second, that nations must trade. From these he deduced that when a nation attempted to force development along unnatural lines it was at conflict with nature. Canada, he claimed, was being developed unnaturally, because agriculture was being neglected and industrialism forced. He gave figures to show that manufactured production was increasing more rapidly than agricultural production, and quoted Mr. Findley to show that his company was depending more on foreign than on domestic trade for profits. He controverted the statement that the farmers were trying to drive the implement makers out of Canada.

Effect of War

Mr. Wood was interrogated by Sir Henry, and admitted that the production of manufactured goods in 1917 was greatly stimulated because of the war, and was not the result of protection. He further admitted that he had no information about a combination of manufacturers, but was arguing along general lines.

W. J. Elliot made a statement with regard to the live stock industry of the Province. He stated the difficulties that were being encountered through drought, severe winter weather, and low prices. When asked by Sir Henry Drayton for suggestions as to what might be done, he said that perhaps the tariff might have some bearing on the situation, though he admitted that they were not buying anything.

Mrs. Sears of Nanton told of the uncertainties of farming in the Macleod district, and cited the case of a homesteader near Nanton, giving figures about his investment in land, machinery, etc. Another farmer's figures were given, showing a net loss for three years of $14,392. Fully one-third, and perhaps more, of the farmers in the district have had almost nothing in three years.

L. M. Gaetz, Red Deer, gave figures covering farming operations in his district with a view to showing how unremunerative farming was.

R. S. Law, Claresholm, referred to the income tax, and said that in 1918 and 1919 the farmers in his district had no returns to make. He thought they should not be required to pay a tax in an abnormally good year without having some chance to recuperate during a bad one.

Lawrence Peterson, Lethbridge, told of the erratic climatic conditions in the Lethbridge district, which he thought an argument in favor of spreading the income tax over three years. He argued, with regard to the tariff, that because removing the duty on tractors had stimulated farming operations, the same result might be expected to follow the removal of the duty on other commodities.

Coal Mining Industry

October 5.—W. F. McNeill, Secretary of the Western Canada Coal Operators' Association, on behalf of the coal operators of Alberta, stated that the coal operators opposed, on national grounds, any reduction of tariff on imported coal. At the end of 1919 there were 276 coal mines in operation in Alberta, employing 12,027 persons. They represented an investment of $27,397,275. Colliery workers and their dependents numbered in excess of 50,000. The value of coal produced in 1918 was $20,537,287. The annual food bill of the mine employees and their dependents was in the neighborhood of $9,000,000. During the winter months, farmers and homesteaders constituted 35 to 50 per cent. of the employees of the domestic or lignite mines. Many men would have to abandon their farms were it not for winter employment in the mines.

Coal Consumption

The annual coal consumption in Western Canada is 9,000,000 tons of all grades. The mines now in operation are capable of producing 12,000,000 tons per year with the present development, equipment and plant. Pennsylvania coal to the amount of between 2,400,000 and 2,900,000 tons annually is being imported into Manitoba, representing an annual payment to United States interests of more than $20,000,000. The railways have gradually displaced American coal with Alberta coal on the prairies. Everything is being done to increase the market for Alberta fuel.

The development of Alberta coal deposits has had far-reaching consequences.

Besides giving employment to the farmers, it has provided them with cheap fuel, and has laid the foundation for industrial development.

Jesse Gouge, Drumheller, a mine operator, took some exception to the memorandum of the Western Canada Coal Operators' Association, claiming that it did not voice the opinion of all the operators. He objected to classing the present tariff on coal as protective, contending it was for revenue only. He further thought that by asking for protection the miners might prejudice their market in the United States.

R. A. Pringle, K.C., on behalf of the textile industry, answered certain propaganda that had been appearing in the Western press.

James Weir, M.L.A., disclaimed the contention that the formers were out-and-out free traders.

EDMONTON.

October 6.—C. G. Robson, Chairman Edmonton Branch, C.M.A., presented a statement. The present industrial development of Alberta amounted to 1,584 establishments, with a capital of $60,000,000, employing 15,000 hands. Reference was made to the Industrial Congresses of 1919 and 1920, showing the interest that was being taken in the development of the province. Figures were supplied as to the coal resources; statistics were given to show the extension of mixed farming. It was contended that a protective tariff was necessary to secure the full development of manufacturing to which the natural opportunities and resources of Alberta will contribute.

The Biscuit Industry.

Harvey Shaw, North-West Biscuit Co., Limited, was in the biscuit business in the United States prior to 1912. He was then convinced it was impossible to get any volume of business in Canada and accordingly established a Canadian plant at Edmonton. He employs 140 people, with agency and selling staffs bringing the total up to 200. Flour is made in their own mill and they use Canadian sugar. Sales in 1919 exceeded $1,000,000 and are increasing. The plant is being extended. No consideration was given to the tariff in fixing prices, and prices were quoted to prove this. The effect of reducing the tariff was explained.

Andrew Rafu, Bon Accord, a director of the United Farmers of Alberta, presented some evidence with regard to the cost of agricultural implements.

W. T. Lucas, Lougheed, contended that farming in Alberta was an unprofitable business. Asked as to how it might be helped, he said he would lower the tariff, but had no evidence to show that prices of implements were higher in Canada than in the United States.

Defended Textile Industry.

C. A. Graham, Great Western Garment Co., Limited, explained why he thought adequate protection desirable. The company started in 1911 with only 11 employees; it has now a staff of 325. Estimated turnover in 1920 was $2,100,000. He defended protection for the Canadian textile industry.

P. Baker, Ponoka, told of the high cost of farming and attributed heavy overhead expenses to the tariff.

Harry Bell, Namao, gave a number of figures covering his farming operations and also his views on the income tax.

Rice Sheppard, secretary-treasurer, United Farmers of Alberta, presented a lengthy brief in which he argued the unfairness of the tariff on farmers with large families. Its unfairness to returned men who had to buy implements at high prices, and the poverty and backwardness of the country as a result of the tariff. The tariff had kept the standard of the workers and farmers down.

Minister of Agriculture.

Hon. Duncan Marshall, Minister of Agriculture for Alberta, spoke as a private farmer and contended that the elements of protection should be gradually eliminated from the tariff. He referred to the great possibilities of agricultural export and believed that production would be stimulated by taking all possible burdens off the back of the farmer. The opportunity to buy in the cheapest market was what was wanted. Protection was no good to the farmer.

SASKATOON.

October 8.—A. I. Turnbull appeared on behalf of the manufacturers of Saskatoon. He regretted the apparent ill-feeling with which manufacturers were regarded. It was, he said, a period of specialization and farmers were no longer independent like their grandfathers. What was required was a better understanding by each group of the problems and difficulties of the other. It was our duty as a nation to extend along all lines. As manufacturers, they approved of what had been done in the way of railroad building, cold storage, experimental farms, etc., for the farming community. Mr. Turnbull then repeated the manufacturers' tariff policy.

In 1905, he said the Province of Saskatchewan had only 55 factories employing five hands or over; in 1918 there were 1,422 establishments. Output increased from $2,500,000 to over $50,000,000. The number of employees increased from 1,576 to 8,188. In Saskatoon in 1905, there were only three establishments; in 1918, 119. The number of employees rose from 36 to 1,230. The value of output increased from $130,800 to $7,620,799. These industries were an important factor in the life of Saskatoon. They required a continuation of protection for their future growth.

Sheaf Loaders and Threshers.

P. S. Houghton, Jackson Machines, Limited, explained that his company was making sheaf loaders and threshers. It was organized in 1915 and has an authorized capital of $300,000, of which $100,000 is paid. The greater number of its stockholders are farmers. In 1917 it marketed seven machines; in 1918, 25; in 1919, 67, and this year about 130. It employs about 25 hands the year round. Mr. Houghton thought a non-political permanent tariff commission would be the best way to deal with the tariff question.

C. H. Richardson, manager of the Western Corrugated Culvert Co., Limited, stated that his company had a capital of $100,000 and employed 15 hands. It commenced in 1910 in a very small way and increased from year to year. Protection on culverts was 30 per cent. and on scrapers 27½ per cent. They imported their galvanized sheets, paying a duty of 12½ per cent. Under the present protective tariff, importations from the United States were not heavy, but under free trade the American culvert manufacturers would have no difficulty whatever in cutting seriously into this trade.

J. B. Musselman, central secretary of the Saskatchewan Grain Growers' Association, presented a statement on behalf of the directors. He explained that the Association was the oldest of the western farmers' organizations and for many years it has been in peculiar measure the mouth-piece of the farmers of the province. Its 40,000 members were all loyal to the best interests of Canada. They believed that the fiscal policy for which they were contending was fairer to all legitimate and reasonably indigenous industries than that now in operation.

Farmers Are Loyal.

The most ardent devotee of law and order had nothing to fear from the organized farmers. They were not wreckers. The farmers' leaders were striving to rouse the farmers more fully to their duties as citizens. They felt that the greater the proportion of the

national revenue raised by direct taxation the greater would be the interest of the masses of the people in matters of Government.

Agriculture Chief Industry.

In Saskatchewan grain-raising was and for some considerable time must remain the chief industry. The province would succeed or fail in proportion as wheat-raising was made profitable or otherwise. They were not opposed in its entirety to the principle of national assistance to industries vital to the national well-being, but they held that the indiscriminate application of the principle was unwarranted.

William Hordorn, Dundurn, gave personal experiences as a farmer.

John Kirkpatrick, Nutana, spoke of the increasing difficulty of getting settlers established on the land.

John Evans, Nutana, discussed what he termed the injustice of the tariff.

Murdo Cameron, supported the statement put before the Commission by Mr. Musselman.

Wiljames Thomson made a statement with regard to the cattle industry.

REGINA.

October 11.—Hon. W. F. A. Turgeon, Attorney-General of Saskatchewan, spoke on behalf of the Government and Legislature of the province and claimed that, as a result of investigation and reflection, the present customs tariff had been found to be oppressive to the agricultural communities of the province. He traced the history of tariff resolutions in the Legislature and also dealt with certain findings of the Board of Commerce.

Gordon Love, Dominion Fire Brick & Clay Products, Limited, spoke on behalf of his company, which was organized in 1912 and reorganized in 1916. They employed on an average fifty-five hands. They had made no profits. Under existing conditions there was practically free trade in the fire brick business. He asked for continued adequate protection on face brick and the establishment of a strong protective tariff to guard the fire brick and refractory industry in its infancy.

Want Protection Continued.

Thomas A. Wilson made a statement on behalf of the Western Manufacturing Co., Limited, which commenced business in 1904. Their staff ranged between 60 and 85 men. They manufactured doors, sashes, mouldings, frames, fixtures, show cases, etc. Protection was about 25 per cent. In only three years since 1904 had they paid a dividend. He asked for a continuance of protection.

Hon. George Langley spoke on behalf of the Saskatchewan Co-operative Elevator Co., with 23,000 farmer shareholders. He backed up the platform of the Canadian Council of Agriculture.

Mr. Musselman tendered certain information on the comparative prices of binder twine.

J. A. Mahay, M.P., President Saskatchewan Grain Growers' Association, appeared on behalf of that organization.

From Small Beginning.

W. J. Orchard referred to the origin of the Massey-Harris Co., and said that a man who started in a little blacksmith shop and was able to amass millions, must in some way have had an unfair advantage.

C. J. Watson, manager of the Great West Saddlery Co., presented a statement which contained much excellent information about the agricultural production of the province, and an argument in favor of protection.

William L. Ramsay, Bladworth, a western farmer of sixteen years' standing, said that the views hitherto advanced were those of class leaders. He wanted a national view. Free trade was an ideal policy for an ideal world, but the first to accept such a policy would be the first to fall. Our home market was our best market and the security of Canada's trade lay in protection.

R. M. Johnson, member of the Executive of the Saskatchewan Grain Growers' Association, gave his experiences in farming.

Walter Shaw, President Walter W. Shaw Co., Limited, Moose Jaw, argued in favor of protection.

A. G. Hawkes, one of the first men to start the farmers' organization in Saskatchewan, gave his experiences.

BRANDON.

October 13.—J. L. Brown, President United Farmers' of Manitoba, presented a statement enumerating reasons why there should not only be no increase in the protective tariff, but why, in their judgment, there should be a very material reduction in customs duties. He was followed by Mrs. J. S. Wood, President United Farm Women of Manitoba, who pictured some of the privations endured by farmers, and by Miss Mabel Finch, secretary of the same organization, who spoke along the same lines, claiming that the tariff struck at the root of home life. Miss Finch later admitted that in all her calculations she had simply added the duty to American prices.

Mrs. James Elliott, a director of the United Farm Women of Manitoba, advanced a number of figures in an effort to show how the tariff burdened the people.

C. S. Watkins, a retired farmer, who had been in the country since 1887, thought that the tariff should be substantially lowered. He gave figures showing the result of his farming operations.

C. H. Burnell gave some experiences in which he claimed the tariff affected the farmer seriously.

Roderick McKenzie, vice-president, Canadian Council of Agriculture, spoke on behalf of that body, presenting an argument for reduced customs duties.

John M. Allan, living five miles north of Brandon, gave some figures to show how small were farmers' profits.

W. R. Wood, Secretary United Farmers of Manitoba, read a statement in which he attempted to controvert some of the arguments of the C.M.A.

A. F. Campbell made a statement asking for reduced duties on linoleum.

A. R. McDiarmid, on behalf of McDiarmid & Clark Co., Limited, incorporated in 1912 and manufacturing frames, mouldings and detail millwork, asked for a continuance of protection.

P. M. Ames, Managing-director Manitoba Engines, Limited, also asked for a continuance of the present tariff, as did H. L. Singleton, Brandon Heating & Plumbing, Limited.

WINNIPEG.

October 14.—T. R. Deacon presented a statement on behalf of the Manitoba Bridge & Iron Works, Limited, the Manitoba Rolling Mills Co., Limited, and the Manitoba Steel & Iron Co., Limited, giving detailed information about these companies.

F. A. Gemmel, Selkirk, submitted the experience of the town as an exemplification of the benefit of industrial development. He stated that development along industrial lines operated greatly to the advantage of the country.

Criticized C.M.A.

Norman Lambert, Secretary Canadian Council of Agriculture, dealt with the argument of the C.M.A. and criticized some of its points.

C. Rice-Jones, General Manager United Grain Growers, Limited, appeared on behalf of that organization and explained its operations. He also spoke on behalf of the United Grain Growers Saw Mills, Limited.

Hon. T. C. Norris, Premier of Manitoba, presented a resolution passed by the Legislature of the province at its last session, dealing with the tariff.

(*Concluded on page* 92.)

An Analysis of the Income Tax as a Means of Raising National Revenue

AN EXHAUSTIVE ARGUMENT

In the accompanying brief, which was presented to the Tariff Commission at Winnipeg on October 14th by Mr. E. Parnell, a complete answer is given to the claim of the Council of Agriculture that the Income Tax, if thoroughly and forcefully applied, could be made to yield $200,000,000 at present rates. The experience of such other countries as New Zealand, Australia, Great Britain and the United States is given, and the conclusion is arrived at that Canada's showing, as regards the collection of the Income Tax, is most favorable. It is further borne out that income taxation is largely a tax on the industrial population and that agriculturists escape all but a very small part of the burden. In fact income taxation cannot successfully be applied to rural communities.

OFFICERS and other representatives of the Canadian Council of Agriculture, and its component organizations, have been advocating income taxation as the principal means of providing national revenue to compensate for the loss which the Federal Treasury would incur under the so-called "New National Policy." In the memorandum to the Tariff Committee at Winnipeg, on September 14th, the Council expressed the opinion that:—

"It is not unfair to say that the income tax, if thoroughly and forcefully applied in this country, ought to yield a revenue of at least $200,000,000 per annum at the present time."

In attempting to review that statement in the light of the income tax experience of other countries, and the short experience of Canada itself, we do not wish to be understood as attacking or even criticizing any group or element in the Dominion. We believe that the agriculturists of Canada are no more unwilling to pay their rightful share of taxes than is any other class, or group. We accept, too, without reserve, the assurance that the farmers and their spokesmen are sincere in regarding the income tax as a fair and reasonable means of compensating for the loss of customs revenue, which would result from the tariff changes which they propose. But we believe as well that, before any important alteration be made in our present fiscal system, the requirements of the Treasury ought to be assured. It is right and proper, therefore, that the statement of the responsible heads of the Canadian Council of Agriculture, as to the revenue possibilities of the Federal income tax in Canada, be subjected to the test of practical experience and that the incidence of the revenue system proposed be considered with the utmost care. Canada's present financial situation does not justify experimentation and in the national interest the claims of those who advocate change ought to be analyzed thoroughly to see whether such claims be true and economically sound. To remove any misunderstanding, permit me to point out that the Council of Agriculture has frankly recognized that "the rate of income taxes (i.e. in Canada) compares favorably with that of other countries of a character similar to Canada." This considerably narrows the field of inquiry, inasmuch as the claim is made that, with the present rates of taxation of income efficiently applied, a yield of $200,000,000 annually could be secured immediately.

The Council's estimate of the possible yield of the income tax in Canada appears to be based on war-time collections in New Zealand. The yield of the New Zealand levy is multiplied by the numerical ratio between the populations of Canada and the sister dominion and the amount is set down as a reasonable expectation of what similar taxation ought to produce in Canada.

An Exclusive Levy

Unlike Canada, New Zealand has a single and exclusive levy by the Dominion Government on all incomes derived from sources other than the use or produce of land. There are no provincial levies and local revenues are raised by land taxation, supplemented to a minor extent by fees, licenses, etc. Income is taxed once, and only once, whereas in Canada there are, in addition to the Federal levy, income taxes already imposed by two of the Provincial Governments, and, in a number of cases, heavy income taxes as well by municipal authorities. To take only three instances, residents of Toronto pay an income tax to the municipality and also a tax to the Federal Treasury on the same income. People in British Columbia are assessed on their income by both the Ottawa and the Victoria administrations. Edmonton citizens pay a tax on their income to the Dominion, another tax on the same income to the municipality, and the Provincial Government is reported to be about to bring down an income tax law, so that their earnings may be levied upon three times each year by three several governments. All the provinces of the Dominion collect corporation taxes of varying severity. Moreover, the municipal business tax, in operation in Toronto, and somewhat similar taxes elsewhere, under different names, on business interests are nothing more or less than taxes on income. Direct income taxation in New Zealand is the exclusive prerogative of the Dominion Parliament. In Canada, every income is liable to assessment by the Dominion Government, by the Provincial administration, and by the municipal authorities. The Canadian Council of Agriculture is on sound ground in urging that there should be the least possible over-lapping in taxation and that as equitable a division as possible ought to be made in the field of taxation between the Dominion, the provinces, and the municipalities. But we must face conditions as we find them, and the fact is that the provinces jealously regard any resort to direct taxation by the Federal Government as an encroachment upon the rightful and traditional taxation sphere of the provinces. This attitude was plainly indicated in a speech by Sir Lomer Gouin, then Premier of the Province of Quebec, in Quebec City, on January 21, 1920. He said:—

"I would not like to go too far back, but I think that on this question of taxation, one who is in public life should never forget the spirit which actuated the Fathers of our Constitution when, in 1867, they went into that pact which gave us the Canadian Confederation. It was thought at that time that indirect taxation should be left to the Federal Government and direct taxation given to the Provincial Governments.

"It is not that I have the intention of quarreling with the Federal authorities because, having to face grave needs as they had, they have been forced to impose temporary direct taxation, but I think that for those who like their province and love their country, now that we are coming back to normal conditions, the principles which we find at the basis of the British North American Act

should be respected if we want to keep our Confederation on a solid and growing one."

But aside from the fact of over-lapping of taxation in this country, whereas there is no such duplication of levies in New Zealand, the New Zealand Act is unlike the Canadian legislation, inasmuch as the New Zealand income tax is practically the only levy on income from sources other than land. In Canada, there are several such Federal taxes which ought to be combined before attempting to compare the taxation burden assessed against incomes in Canada with that in other countries. In addition to the income tax proper, there is the Business Profits War Tax. Business income, if assessable for the higher levy of the Business Profits War Tax, pays under that heading, and the collections reported on account of income tax represent principally payments on personal incomes. Then there are in Canada, special Federal taxes on banks, insurance companies, and trust and loan companies. These levies in effect are only special divisions of the Canadian Federal taxation of income. Direct income taxation by the Dominion Government in the fiscal year 1919-1920, was as follows:—

Income Tax (largely on personal income)	$20,264,242
Business Profits War Tax	44,145,184
Taxes on banks, insurance companies and trust and loan companies	2,083,170
Total	$66,492,596

Propriety of This Grouping

The propriety of so grouping the collections under the Income War Tax Act, 1917, and amendments; the Business Profits War Tax Act, 1916, and the Special War Revenue Act, 1915, in order to arrive at the amount of Federal Taxation of incomes in Canada, cannot be challenged. Section 3 (*a*) of the Business Profits War Tax Act, 1916, provides for deduction of the amount of tax payable under Part One of the Special War Revenue Act, 1915, and Section 4, Subsection (5) of the Income War Tax Act, 1917, provided for deductions of amounts payable under the Special War Revenue Act, 1915, and the Business Profits War Tax Act, 1916.

For 1918-1919, the first year in which income tax was collected by the Federal Government in Canada, Dominion taxation of income was as follows:

Income tax (principally on personal incomes)	$9,349,720
Business Profits War Tax	32,970,062
Tax on banks	1,099,764
Tax on trust and loan companies	323,340
Tax on insurance companies	546,114
Total	$43,289,000

For 1920-1921, official estimates, as shown in the last budget speech of the Minister of Finance, are approximately as follows:

Income tax	$35,000,000
Business Profits War Tax	40,000,000
Taxes on banks, trust and loan companies, and insurance companies	2,100,000
Total	$77,100,000

New Zealand Taxation

Income tax collections in New Zealand for the fiscal year 1919-1920 amounted to £6,369,765 ($30,999,523 at parity of $4.86⅔ to the pound sterling). New Zealand's population is about one-seventh that of Canada, and it has been suggested that this country ought, under efficient administration of the income tax, to collect a revenue proportionately larger. It has already been explained that the New Zealand tax is an exclusive levy on income, whereas, in Canada, Federal taxation of income must be limited by consideration of the taxes imposed by the provincial and municipal governments. Nor is this the only difference. New Zealand is a comparatively centralized community, long established, prosperous, and with relatively much more accumulated wealth than is found in Canada. Moreover, taxation in New Zealand is not limited as is the case in Canada by proximity to a great wealthy country of the same language and customs, and continually offering opportunities and rewards for immigration. Not only is the United States a competitor with this country for Canadian human resources, but the Republic, to a very large extent, now controls the capital so urgently needed for the development of the Dominion. The chairman of the Tariff Committee, as Minister of Finance, recognized in his last budget speech the limitation upon Canadian taxation which is imposed by our relationship to the United States, but he ventured a small increase in the Canadian income tax rates over those in force south of the international boundary. He said: "That our measure of taxation must, in view of our geographical situation, have regard to United States legislation, is a principle that has found general acceptance. I do not desire to question it. But revenue is urgently required and a difference of 5 per cent. in those individual and corporation taxes will not deter immigration and the investment of outside capital so essential to our national development and growth."

Gradual Improvements

The New Zealand income tax has been in force continuously since 1892, and in a comparatively small, settled country of less than 104,000 square miles, with a population of about 12.5 to the square mile, as compared with only 2.36 in Canada, twenty-seven years' operation has enabled such improvement of administrative machinery as to increase collections and follow up attempted evasion. For many years, the New Zealand tax did not yield a large revenue. Ten years after the Act was first operative the collections under the Income Tax were less than $1,000,000, and in 1901-02, customs and excise duties were still responsible for 73.6 per cent. of the taxation revenue of that Dominion. In Canada, on the other hand, the Federal income tax is an entirely new levy, operated only under war conditions, encroaching on a revenue source already tapped by provincial and municipal governments, and operated under the peculiar difficulties of enforcement which obtain in Canada by reason of geographical and other conditions. It ought also to be kept in mind that the high yield of the New Zealand income tax was accounted for in very large measure by a special war tax superimposed upon the normal rates. Imports into New Zealand were greatly curtailed by war conditions, involving a reduction in customs revenue at a time when the financial needs of the country were largely increased. The income tax, long established, and with administrative machinery already at hand, together with the land tax, offered the most readily available means of augmenting the revenue of the State. But a continuance of the war-time rates indefinitely under peace conditions has not been seriously proposed. One of the most forceful of all the arguments which have been advanced in justification of the income tax is that it provides a ready means of securing a large increase in State revenues in time of emergency. It is the most elastic revenue element. But high rates which may be desirable under emergency conditions may be entirely too burdensome as a normal peace levy. The United States, for example, with large wealth, accumulated before 1914 and between 1914 and the time that country entered the war, was able by means of direct income taxation to levy a large emergency revenue. But the Excess Profits Tax Act (the levy on the income of corporations) has been admitted by Treasury officials and other experts to be unsuited to peace conditions and already the rates have been substantially reduced from the war-time maximum.

There is another side to the comparison between taxation systems of New Zealand and Canada which is of interest. When in 1891 New Zealand abandoned the Property Assessment Act, under which a general property tax has been levied, and substituted therefor the Land and Income Assessment Act, it

was frankly recognized that an income tax was almost impossible of effective, equitable application to rural communities. The same lesson had been learned years before by some of the Commonwealths in Switzerland, and Prof. Seligman, in his "Essays on Taxation," states that the New Zealand Government followed the example of the Swiss cantons and instituted a land tax to supplement the levy on income. The land tax, in New Zealand, is a capital tax, assessed on the gross saleable value of the land, less the value of all improvements made upon it. This valuation both for purposes of Federal and local taxation, is made by the Federal Government. An owner is allowed an exemption of £500 on land, the nominal value of which does not exceed £1,500, but the exemption diminishes on holdings of greater value, and when the value is above £6,000 no exemption is allowed. With a super-tax, the present rate ranges from 6¼ to 23 mills on the dollar of assessed capital value. It must be remembered that this tax is in addition to the local rates of land taxation. For the year ended March 31, 1920, the land tax yielded £1,557,903, or $7,581,795 at par of exchange. Those who claim that the Dominion Government should be collecting $200,000,000 annually by income taxation have failed to point out that, under the New Zealand system on which they base their argument, this country would collect an annual land tax of more than $53,000,000 and that, as in New Zealand, the larger part of this levy would have to be borne by the agriculturists. Moreover, in New Zealand, the income from mortgages on land is now assessed under the Income Tax Act, and, of course, the tendency is that this burden, too, will be shifted in large measure to the farmers.

Australia

Australia, also is sometimes cited as an example for Canada in income tax administration. Indeed, the comparison with Australia is fairer than with New Zealand, inasmuch as the Australian States, like several of the Canadian Provinces, collect income taxes as well as the Federal Government. The latest issue of the Official Year Book of the Commonwealth of Australia, gives financial statistics only to the end of the fiscal year 1917-1918. In that year, the combined income tax and war profits tax revenues amounted to $39,252,207 as compared with $27,360,157 in 1916-1917, and $19,439,505 in 1915-1916, these figures all being obtained by conversion of the Australian official returns on the basis of $4.86⅔ to the pound sterling. In Canada business profits were taxed to the extent of $12,506,517 by the Dominion Government in 1916-1917, and $21,271,084 in 1917-1918, but no general income tax collection was made before 1918-1919. The Commonwealth authorities in Australia, even with the close example of New Zealand, were reluctant to resort to income taxation, but were forced to do so early in the war by the very serious shrinkage in imports and the consequent decline of customs revenue. In this connection, Sir Frederick Young, M.P., in evidence before the British Royal Commission on the Income Tax, on May 8th, 1919, said:

"In Australia the Federal tax (i.e. on income) is entirely a war tax. Until the war happened the Federal Parliament deliberately kept out of the income tax sphere, leaving that to the States as a field for taxation, but the imperious necessities of the war altered that and the Federal tax was brought in to help to meet the war bill."

Comparison of Revenues

The first general income tax collection in Australia was in 1915-1916. We are, then, in a position to compare the income tax revenues of The Federal Governments of Canada and Australia for the first three years of operation in each country:

	Australia.	Canada.
First year of general income tax collection	$19,439,505	$43,289,000
Second year	27,360,157	66,492,596
Third year	39,252,207	*77,100,000

*Estimated.

Australia's population is approximately five-eighths that of Canada, and Australia's national wealth and income are probably even higher relatively than the ratio of the populations of the two countries, but the above table proves that, even on the basis of population, income tax collections have been proportionately higher—and by a considerable amount—in Canada than in Australia.

Like New Zealand, but unlike Canada as yet, Australia for some years has been collecting a Federal tax on the unimproved value of land as ascertained by the Government. The yield in 1917-1918 was equivalent to $10,335,724. To this ought to be added the land taxes of the several states amounting to $4,935,685, making a total of $15,271,409. Moreover, although Australia is more highly urbanized than is Canada, the Official Year Book for the Commonwealth shows that slightly more than sixty per cent. of the land tax is assessed on lands in the country, and a little under forty per cent. on lands in towns and cities. In addition, agriculturists deriving income from land mortgages or from stocks or other non-land sources are liable under the Australian income tax law.

Turning to a consideration of the experience of Great Britain, we find that a tax somewhat similar to the income tax was levied in 1798, and the British income tax became operative the following year. The income tax was regarded as essentially a war measure. Evasion of the tax was prevalent and for years the yield was disappointing. In 1816, when the income levy was abandoned, the return was only £14,689,710. The tax was not revived until Sir Robert Peel's Act of 1842. In 1874, Mr. Gladstone, in a manifesto to his constituents, proposed the complete abandonment of the income tax. In 1913-1914, the yield of the British income tax, after 72 years continuous operation was £43,901,763, or about the same amount as the Canadian Council of Agriculture proposes should now be assessed annually upon the people of Canada..

British Income Tax

The British income tax as applied to agriculture is essentially a land tax. Schedule A relates to the ownership of lands and buildings, and schedule B to the occupation of lands. A revaluation of all lands and buildings in the United Kingdom is made under normal conditions every fifth year. Owners of land and buildings are required to pay income tax on the annual value of such property subject to a small deduction for repairs and in addition farmers have to pay income tax on double the annual value of the lands they occupy. The Act provides that if farmers keep books and can prove that their gross income, less only the limited allowances, were less than twice the annual value of the land which they occupy, they can elect to be assessed under schedule B in the same way as manufacturers or tradesmen. Up to 1915 British farmers were assessed on only one half of the annual value of the lands occupied by them, but the assessment was raised several years ago to the full annual value and again in 1918, to twice the annual value. For 1918-1919, the British tax on the ownership and operation of lands under schedules A and B was more than $269,000,000, and a very considerable part of this amount was paid by the farmers. But even yet it is claimed that British agriculturists are not paying their fair proportion of taxation. The Association of British Chambers of Commerce, in representations to the Royce Commission on the Income Tax on July 18, 1919, described the present under-assessment of farmers as "intolerable," and urged that between £5,000,000 and £10,000,000 additional taxes should be levied annually upon the British farmers, and seriously proposed that the assessment on farmers be raised from two to five times the annual value of the lands occupied.

The income tax experience of the United States is illuminating also. A Federal

tax on the income of corporations was imposed under the Payne-Aldrich tariff law of 1909, but it was not until 1913 that general income taxation was adopted. For 1913-1914 the combined yield in the United States of the corporation excise tax, corporation income tax, and individual income tax was $71,381,275. Relating the yields from income taxation in Canada and the United States for the first three years' collections in each country, we get the following comparison:

	United States.	Canada.
First year of general income taxation	$71,381,275	$43,289,000
Second year ...	80,201,759	66,492,596
Third year	124,937,253	*77,100,000

*Estimated.

The above showing is highly favorable to the Dominion, when it is remembered that the United States' population is at least twelve times as great as that of Canada, and the wealth of the United States from twelve to twenty times as great as that of the Dominion

Returns Disappointing

The initial year of income tax collection in the United States brought collections below the estimates of Treasury officials and were admittedly disappointing. For the year ended June 30, 1914, New York State, with only ten per cent. of the population of the United States, contributed forty-four per cent. of the entire income tax receipts, while New York city alone paid twenty-eight per cent.

The unfairness of the income tax in the United States in falling almost entirely upon the industrial communities is indicated by the statement in the new International Year Book in reference to the 1915-1916 collections under the personal income tax that "students of the income tax returns pointed out that residents in and about New York city paid one-half of the total tax" and that seventy per cent. of the tax was paid by residents of six states—New York, Pennsylvania, Illinois, Massachusetts, New Jersey and Ohio.

An official compilation by the United States Treasury Department of returns for the year 1916 showed that farmers, stock-raisers, orchardists, and other agriculturists, paid only 1.04 per cent. of the entire personal income tax. Analysis of the 1917 personal income tax returns by occupational groups was omitted from the Treasury Department reports, but the latter show that less than one per cent. of the total tax on companies was borne by those engaged in agriculture and related industries.

Canadian experience fully bears out the statement that income taxation is largely a tax on the industrial population, and that the agriculturists escape all but a very small part of the burden. This is not a reflection on the honesty of the farmers. But comparatively few farmers keep books, and unlike the people in cities, they do not consider "house and keep" as part of the revenue derived from their farming operations. Then, too, in the newer districts particularly, a substantial part of returns from agriculture is represented by the enhancement in land values and such increase is not reached by the income tax. It is undoubtedly true that some farmers are most conscientious in making out their income tax returns, but there are many others who do not make proper returns. Answering questions put on the order paper by Sir Herbert Ames, Sir Thomas White stated in the Canadian Parliament on May 5, 1919, that the aggregate assessment under the Income War Tax Act of 1917 of all persons giving their vocations as farmers or stock-raisers, was $417,349, out of a total assessment, aside from the Business War Profits Act, of $10,031,094. Even these amounts, however, were not all paid during the fiscal year 1918-1919, as the Public Accounts show income tax collections during that year of $9,349,719. Assuming that the proportion of collections to assessment apply about equally to all classes, the farmers would have paid an aggregate of only $389,011, while the balance of the income tax must have been paid by the non-agricultural population. The proportion paid by the farmers is still less when one considers that agriculturists are expressly exempt from the Business War Profits Tax, and that the burden of direct Federal war taxation borne by the non-agricultural population during the fiscal years 1915-1919 was $83,379,099, as compared with $389,011 paid by the agriculturists.

Agriculturists' Profit

Again, a Government return, published in the Canadian *Hansard* on May 10, 1920, showed that for the fiscal years 1918-1919, and 1919-1920, income tax collections in the counties of Leeds, Frontenac, Lennox and Addington, Prince Edward, Northumberland and Peterborough, totalled $426,251, of which $421,957 was paid by urban dwellers and only $4,294 by those in the rural districts. The census of 1911 reported the rural population of these counties at 105,109, while the urban population was only 47,135. In other words, the urban population, although less than one-third of the whole paid 99 per cent. of the tax.

Mr. W. F. Cockshutt, M.P., speaking in the Canadian Parliament on May 28, 1920, gave figures which apparently were official. He said: "In Ontario, with 183,000 farmers, I am told that there were only 314 who made returns . . . . . I am told further, by the Commissioner of Taxation, that in the City of Toronto, which is stated to contain a large body of defaulters, there was more income tax paid in one particular year than by the three western provinces of Canada added together."

At several hearings of the present Tariff Committee, the chairman has given interesting information relative to the income tax collections in Canada. At Calgary, on October 4th, he told a witness that only 1,277 farmers in the Province of Alberta paid income tax last year. The population of that province is officially estimated at 587,770, and is predominantly agricultural.

Few Farmers Pay

At Regina, on October 11th, the Minister of Finance stated that only 2,277 out of the 120,000 farmers in Saskatchewan were income tax payers. In all Canada there are only 6,490 farmers who are paying any Federal income tax. For every farmer who pays income tax to the Dominion, there are 16 non-agricultural income tax payers. Last year, out of $18,085,977 paid in income tax, exclusive of back payments, only $400,000 —slightly more than two per cent.—was contributed by farmers. If we consider the total collections last year on account of Federal taxation of incomes amounting to $66,492,596, the agriculturists, who represent one-half of the entire population, paid only $400,000, or about three-fifths of one per cent. of the total. In fairness to the Canadian Council of Agriculture, it ought to be said that the Council did not have these figures at the time they incorporated in their platform a demand that the income tax be employed as a substitute for the tariff as a means of raising national revenue.

Nor can this record be justified on the ground that the agriculturists of Canada are not able to pay a larger proportion. Mr. R. H. Coats, Dominion Statistician, in an article in the *Monetary Times*, January 3, 1919, estimated the entire national wealth of Canada at $16,000,000,000, and the agricultural wealth at $6,830,145,000. He also valued the gross production of Canada in 1917 at $4,425,788,125, and of this $1,621,028,000 was accounted for by agriculture. This means that at the present time, so far as direct Federal taxation is concerned, the agricultural wealth, representing between 40 and 50 per cent. of the whole, is making practically no contribution, while the non-agricultural wealth is paying a substantial tax.

From another angle, one may well question whether the incidence of income taxation in Canada is equitable, except

when such levy is supplementary to other taxation. Official records show that there were only 99,768 income tax payers in Canada out of a population officially estimated at almost 9,000,000. Moreover, 6,699 taxpayers paid no less than 82.15 per cent. of the taxes, while the other 93,069 taxpayers contributed only 17.85 per cent. Surely by attempting to give to income taxation the place of first importance in our revenue system, there is serious danger of placing in the hands of voters, who contribute nothing to the expenses of government, control over national policies and national expenditures.

Where the Burden Falls

The burden of taxation upon the non-agricultural population of Canada is now about as heavy as can be imposed without endangering a collapse of the entire structure. The Minister of Finance in his last budget speech admitted that it would be hard to find any argument which would justify the continuance of the Business Profits War Tax under normal conditions. The estimated yield of that tax this year is $4,000,000 less than the return for 1919-1920. This element in our revenue system cannot be continued indefinitely. With the Business Profits War Tax withdrawn, corporations would still be taxed under the Income Tax Act, but the readjustment of prices and other developments consequent upon a return to more stable conditions threaten seriously to curtail the revenue from this source.

Yield Must Increase

Federal income taxation under all headings yielded, as has been shown, $66,492,596 last year. To treble that amount immediately, or within a year or two, without any increase in rates, in the face of falling prices and more or less uncertainty in business of all kinds, is the task set by the Canadian Council of Agriculture. To state the proposition suffices to show how impossible it is of realization. For the current fiscal year the estimated yield from these sources is slightly more than $77,000,000, but to increase such revenue by 123,000,000 annually under present conditions, by improvement in administrative machinery alone, cannot reasonably be expected. Nor does the income tax experience of other countries, as reviewed above, support the contention that the income tax in Canada could be made to yield $200,000,000 annually at the present time. The Secretary of the Canadian Council of Agriculture has recently put forward the request that the income tax be levied, not on the income of an especially good year, but on a three years' average, following the principle in force in Great Britain. If adopted, such change would tend still further to reduce the revenue which could be derived under normal conditions by taxation of incomes.

Where Income Tax Fails

Students of taxation generally have recognized that income taxation cannot successfully be applied to rural communities and that it must be supplemented by some compensating levy on the rural population, if all are to contribute to public revenues in proportion to their ability to pay. In fact the income tax is favorably regarded now, as in the past, mainly as a tax supplementing other means of raising revenue.

In this connection the Assessment and Taxation Commission of the Province of Manitoba has collected valuable evidence. The Commission was appointed on July 26, 1918, and included representatives of the Grain Growers as well as of other interests. In a report, dated December 27, 1919, and signed without reserve by Mr. Peter Wright for the agriculturists of Manitoba, as well as by the other members of the Commission, the statement is made frankly that the income tax "is primarily an urban tax, the rural communities contributing only a small percentage of the yield." The report adds: "This is in accordance with general experience, and with the views of the leading authorities who are agreed that income tax administration is least effective in purely agricultural communities." The opinion is also expressed that, in any taxation system which aims at distributing the burden in proportion to ability to pay, "it will always be necessary, however, to supplement income by other criteria of faculty."

Experience of Wisconsin

Mr. Thomas E. Lyons, a member of the Wisconsin Tax Commission, is quoted as follows, in part:

"Experience thus far has shown that the principal yield of the income tax comes from the centres of business and population. It is, therefore, primarily an urban tax. Milwaukee City alone contributes over 40 per cent. of the taxable income assessed, and fifteen counties, containing the principal cities, furnish 75 per cent. of the total for the State. Less than one-half of one per cent. of the population in strictly rural districts is subject to the tax, and the yield is comparatively insignificant. . . . ."

The special Commission of the State of Nebraska on Revenue and Taxation has reported that the income tax is an essential aid in bringing about an equitable apportionment of the tax burden "among peoples well advanced industrially."

The State Tax Commission of North Dakota, in a recent report, favored a land tax, supplemented by an income tax, as a means of raising State or Provincial revenue. The Commission added: "Public financiers have never been able to apply an income tax to land with anything like satisfactory results. It has been attempted time and again, but with indifferent success."

Professor T. S. Adams, of Yale University, is quoted as stating: "The income tax yields little or no revenue in rural or farming districts, and for that reason, I would not recommend it to farming communities; but for thickly-settled manufacturing and urban communities, it is bound to spread and in the end to supplant the relatively unjust and unfair tax on personal property."

The Manitoba Commission

The Manitoba Commission comments that Professor Adams' statement "seems to be the prevailing opinion everywhere." It points out that in the income tax provisions of Ontario, the income of farmers derived from the produce of their farms is expressly exempted from taxation under the income tax law. Presumably the reference is to the assessment legislation of Ontario. The Commission adds: "We have carefully and fully considered this feature and recommend that the provisions of any general income law that may be enacted in this Province be confined wholly and exclusively to urban communities."

In view of this evidence, issued under authority of a representative commission and accepted by the delegates of the Grain Growers on that Commission, any demand for increased levies under the Canadian income tax law, without at the same time advocacy of a supplementary measure of taxation upon the rural population, would be viewed by the people in the cities and towns, as a demand for discriminatory class taxation.

Great Britain, Australia, New Zealand and certain other countries where income taxes are in force, collect from the farmers what is in fact a land tax. On the basis of the New Zealand returns, a Federal land tax of not less than $50,000,000 ought to be imposed in Canada if a thorough-going system of direct taxation is to be adopted, and on the Australian basis, not less than $30,000,000 of this would have to be paid by agriculturists, in addition to a tax on their income derived from sources other than the use and produce of land. Such a land tax would mean on the average, a direct Federal levy of more than 30 cents per acre for every acre of farm lands, or a tax of between $40 and $50 per year on every farm in Canada, in ad-

dition to all taxes already paid. If capitalized, the tax would reduce the value of the average farm by from $500 to $1,000. On the larger farms the tax would, of course, be much larger than the average for all Canada.

Opposition to Land Tax

There appears to be widespread opposition, however, on the part of agriculturists in Canada to imposition of a Federal land tax. Sir Lomer Gouin, speaking for the Government of the Province of Quebec, last January, said:

"I was speaking this afternoon in the House of Assembly on a question which was raised by some of our members in favor of an increase of our employees' salaries. I was telling my colleagues that if they were to increase our expenditure they must find some new revenue, and I thought it was apropos to tell them that the last tax they should think of was the land tax. I beg permission to repeat to you, gentlemen of Canada, that such a tax imposed by Ottawa would be disastrous to our country. The day that you will tax the land, Sir, you will discourage our farmers, you will ruin the provincial administrations and soon afterwards, believe me, we shall have to prepare for a change in the destinies of our country."

Hon. Duncan Marshall, Minister of Agriculture, for Alberta, when asked at Edmonton by the Chairman of the Tariff Committee whether he would favor a direct Federal land tax, replied: "I would not. I am opposed to a direct land tax by the Federal Government." Such appears to be the preponderating sentiment in the agricultural communities.

Direct Taxation Proposed

The Canadian Council of Agriculture is of the opinion that a substantial saving in the cost of collecting revenue would result from substitution of direct taxation for the present fiscal policy. The cost of collection of Canadian customs revenue was 2.51 per cent. in 1917-1918, and 3.13 per cent. in 1918-1919. The cost of collecting the British income tax in 1918-1919 was close to $15,000,000, or approximately 1 per cent. The tax on incomes under £250 costs no less than 7½ per cent. to assess and collect. The British income tax is administered by thousands of officials in a great organization developed by several generations' experience. At the head is the Chancellor of Exchequer, and, answerable to him the Board of Inland Revenue. Then come 725 bodies of General Commissioners, with a total of 5,600 General Commissioners. Of surveyors, assistant surveyors and inspectors there are some 1,225. Then come 4,500 assessors and about 1,000 collectors. Besides the officials mentioned there are Special Commissioners, Additional Commissioners, Departmental Commissioners, and a separate income tax organization for Ireland, besides a great number of clerks. If British experience teaches anything, it is that income tax administration means a large and expensive organization—and even with such organization and a century's experience, it is officially admitted that £60,000,000 annually is lost through evasion, while Sir Leo Chiozza Money estimates that evasion of income tax (and super-tax) keeps as much as £100,000,000 from the Treasury annually. With administrative problems far more difficult than those in the United Kingdom, with a tremendous area and sparse population to cover, and with a much smaller revenue to be collected here, Canada's income tax expenses under a thorough system cannot be expected to be much under 3 per cent. Moreover, it must be recognized that a collection of $200,000,000 by direct taxation of incomes, would not make possible the entire abandonment of tariff revenue. But even if this country went on a free trade basis, customs organization still would have to be maintained practically in its entirety. No doubt some reduction in staff would result, but the saving would be much smaller than the Canadian Council of Agriculture appears to contemplate.

Objections

Then, too, if income taxation were elevated to the foremost place in the Canadian revenue system, there is reason to believe that it would prove disappointing to those who look to direct taxation to correct injustices in the present system and provide an ideal revenue source. Wherever the income tax has been employed it has been accompanied by evils at least as flagrant as those found under almost any other revenue system. The income tax has been in force in the United Kingdom, except for periods, from 1779, and yet in 1905, Mr. Stoodley, one of the secretaries to the Board of Inland Revenue, admitted that the Department was in possession of evidence "showing that grossly insufficient returns, or no returns at all, were made over long periods of years with impunity, the probability of detection being slight until some event occurred to bring the facts to light, such as the death of the taxpayer, the conversion of a private business into a limited company, or a claim being made for compensation for disturbance based on the profits." The minutes of evidence before the British Royal Commission on the Income Tax, 1919, are replete with grievances of inequitable incidence. Salaried workers complain that they suffer by reason of evasion of the tax by those who are better able to escape their rightful contribution. Industrial interests protest that the agriculturists are not taxed in proportion to their ability to pay. There has been widespread dissatisfaction that large numbers of artisans, earning good incomes, pay no tax. The fact that foreign producers, paying no income tax to the British Government, are able under the present fiscal policy of the United Kingdom to profit by the British market, in competition with British producers who are taxed upon their entire earnings, has caused much irritation. Direct taxation in Great Britain—and there it has found its highest development—is far from free of anomalies and imperfections. After reading the evidence before the Royal Commission, one may well question whether, from considerations alone of the efficiency in revenue collection, approximate equity in distribution of the burden of taxation, and the mildness of incidence (especially in view of the fact that in many cases import customs duties are absorbed wholly or in part by the exporter) the customs tariff is not preferable to the income tax as a means of collecting a large part of the national revenue. The income tax, supplementing the customs tariff, provides a well-rounded fiscal system which supplies revenue on a basis as equitable as has yet been devised. The income tax has much in its favor as a supplementary tax, and is especially useful in time of emergency, by reason of its elasticity, but as a main revenue resource, under normal conditions, it fails to satisfy the recognized canons of equity in taxation. Speaking from wide experience, Mr. D. M. Kerly, Chairman of the Board of Reference set up in connection with the British Excess Profits duty, who was also a member of the Royal Commission on the Income Tax, 1919, recently made this significant statement:

"We have had several witnesses here who have told us that the income tax is a very excellent tax, and some have suggested that it should be the only tax. Each of the witnesses I have in mind represented large bodies of persons who would pay no tax at all, and therefore, their statement came to this, that the Income Tax was an excellent tax for other people to pay."

C.C. of A.'s Proposals

The Canadian Council of Agriculture in its official platform proposes that direct taxation be imposed—

"(*a*) By a direct tax on unimproved land values, including all national resources."

The possibilities of such a tax have been analyzed above. It is of the greatest importance, that the agriculturists realize that the larger part of such levy

(*Continued on page* 140.)

Reply to the Arguments Advanced for the Reduction of the Tariff

Statement Presented by the Canadian Manufacturers Association to the Tariff Commission at Winnipeg on October 14th, 1920

AT the opening session of the Tariff Commission at Winnipeg on September 14, the Canadian Manufacturers Association presented a general statement advocating the maintenance of the present fiscal policy of Canada. It is respectfully submitted that while the policy advocated has been opposed, the facts contained in this statement have not been refuted.

During the sessions of the Commission following the Winnipeg sitting, those who advocate a reduction of the Canadian Customs Tariff have used general lines of argument.

In the first place, statements have been made describing the hardships suffered by farmers in the Prairie Provinces, which are doubtless accurate in regard to those farmers who are operating in the dry belts, or who have had a succession of crop failures due to climatic conditions, but it can scarcely be claimed that the experiences of these particular farmers are representative of Canadian agriculture, the prosperity of which, we believe, compares favorable with that of the best agricultural countries in the world.

In the second place, the necessity of bringing under cultivation the vast area of arable vacant lands has been repeatedly urged. With this view, all classes of people in Canada will surely agree, because the importance of such action is self-evident. However, a similar problem confronts other partially settled countries, such as Australia, Argentine Republic, and Brazil, all of which maintain customs tariffs higher than that of Canada. These countries maintain such tariffs in the belief that it is necessary to assure the larger proportion of the home market to home producers in order to encourage well-balanced national development..

The charge that Canadian manufacturers take advantage of the Customs tariff to enhance the prices of their goods to consumers, which has been circulated for a number of years, has been repeated at various sittings of this Commission. These charges, as usual, have been made in general terms and have not been supported by proof in any case. Having been given the opportunity afforded by the sessions of this Commission to produce definite proof in support of vague

In this brief, which was read by J. R. K. Bristol, Manager of the Tariff Department, C.M.A., an answer is given to the contention that manufacturers make use of the Tariff to enhance the prices of goods to consumers, and that manufacturers are the only class who are protected by the Canadian Customs Tariff.

allegations, we think that it is reasonable to suggest that such allegations should not be made in future unless supported by the name of the company, name of the article, and full information in regard to comparative prices, and specific dates of transactions. While those who have made these charges have contented themselves with general statements; on the other hand, at the various sessions of this Commission, information has been produced by manufacturers, supplemented by comparative prices, to show that their prices at Canadian points are considerably lower than United States delivered prices; and moreover many cases were filed showing where the Canadian prices at Canadian points are lower than the United States prices for the same class of goods in corresponding United States territory. It has been demonstrated that these Canadian manufacturers have been able to sell at such prices because the Customs tariff assures them a substantial proportion of the home market, and thus makes it possible for them to produce in large quantities. Conversely, it was shown that if the tariff were removed, and the Canadian home market largely flooded with goods from other countries, while Canadian goods were practically excluded from these other countries by existing tariffs, Canadian manufacturers would have their quantity production decreases, and their operating costs per unit consequently increased until they would find it impossible in many cases to continue operations.

It has been inferred at these hearings that the manufacturers are the only class who are protected by the Canadian Customs Tariff. In reply we refer to the following items of the tariff which show that duties are imposed on many farm products; consequently the farmers who produce these products are protected from the unfair competition of the farmers in other countries:

Tariff Item		British Preferential	Intermediate tariff	General tariff
4	Horses, over one year old, valued at $50 or less per head, each	$10 00	$12 50	$12 50
5	Animals, living n.o.p. (i.e. other than live hogs and animals for improvement of stock)	15%	22½%	25%
6	Live hogs, per lb.	1c	1¼c	1½c
9	Poultry and game other than canned	12½%	17½%	20%
16	Eggs, per doz.	2c	2½c	3c
18	Butter, per lb.	3c	4c	4c
35	Hops, per lb.	4c	6c	7c
47	Beans, n.o.p., per bus.	15c	22½c	25c
48	Peas, n.o.p., per bus.	10c	12½c	15c
49	Buckwheat, per bus.	10c	12½c	15c
52	Barley, n.o.p., per bus.	10c	12½c	15c
54	Indian corn for purposes of distillation, per bus.	7½c	7½c	7½c
56	Oats, per bus.	7c	9c	10c
58	Rye, per bus.	7c	9c	10c
60a	Wheat, when imported from a country which imposes a customs duty on wheat grown in Canada, per bus.	8c	12c	12c
69	Hay and straw, per ton	$1 65	$1 75	$2 00
70	Flax seed, per bus.	7½c	10c	10c
71	Seed of timothy and clover	5%	10%	10%
71a	Field and garden seeds not specified as free, valued at not less than $5 per pound, in packages, weighing not less than one ounce each	5%	10%	10%
83a	Potatoes, when imported from a country which imposes a customs duty on potatoes grown in Canada, per bushel	12c	20c	20c
85	Tomatoes, fresh	20%	27½%	30%
87	Vegetables, n.o.p.	15%	27½%	30%
95	Blackberries, gooseberries, raspberries, strawberries, cherries and currants, n.o.p., per lb.	1½c	1¾c	2c
96	Fruits, n.o.p.	17½%	22½%	25%
97	Pears, quinces, apricots, n.o.p., per cwt.	35c	45c	50c
97a	Plums, per bus.	20c	20c	30c
98	Melons, each	2c	2½c	3c
100	Grapes, n.o.p., per cwt.	1½c	¾c	2c
102	Peaches, n.o.p., per cwt.	67c	90c	$1 00
108,	Honey, in the comb, or otherwise, per lb.	2c	2½c	3c
138	Maple sugar and maple syrup	15%	17½%	20%

Tobacco—Canadian growers are protected in the amount of excise duty payable.

Besides, being protected in the home market on most of their farm products,

Canadian agriculturists can import certain commodities such as binder twine, light tractors, cream separators, etc., free of duty and the duties on farm machinery and supplies in general are the lowest in the Canadian tariff schedules.

We beg to deprecate the assumption that certain Saskatchewan newspapers have made to the effect that the tariff problem aligns the manufacturers on one side in opposition to the farmers on the other. During these sessions of the Tariff Commission, in addition to the manufacturers, fishermen, lumbermen, coal operators, wholesale merchants, farmers' organizations, and others have appeared and declared their support of the policy of protection. In British Columbia, the British Columbia Fruit Growers' Association declared in favor of the present tariff on their products; the British Columbia Seed Producers' Association asked that certain articles in the free list produced by them be protected; the Fraser Valley Milk Producers' Association asked that their present protection be maintained, and the United Farmers of British Columbia endorsed the resolution of the British Columbia Fruit Growers' Association asking for the maintenance of the tariff on fruit, that is, in British Columbia. Practically all the farmers of the province, through their respective organizations, asked for tariff protection.

Throughout the hearings, the official representatives of certain of the farmers' organizations seemed anxious to avoid the charge that they are free traders. It is not alleged that the farmers of Canada are all free traders, or that the majority of them are free traders; in fact, the history of the last forty years indicates that the majority of farmers have consistently supported the policy of adequate protection for home industry, including farming; but we wish to show from an analysis of the official platform of the Canadian Council of Agriculture drafted and issued at Winnipeg on November 29, 1918, how far the tariff policy enunciated in that platform goes in the direction of free trade. The preamble to the definite tariff demands of the platform reads as follows:

"Therefore be it resolved that the Canadian Council of Agriculture, representing the organized farmers of Canada, urges that, as a means of remedying these evils and bringing about much-needed social and economic reforms our tariff laws should be amended as follows:"

(a) "By an immediate and substantial all-round reduction of the Customs tariff."

It should be noted that the reduction requested is to be "immediate" and "substantial" and "all-round." What is meant by these terms in percentages? Taken literally, the clause advocates a long step towards free trade.

The second demand reads as follows:

(b) "By reducing the Customs duty on goods imported from Great Britain to one-half the rates charged under the general tariff, and that further gradual, uniform reductions be made in the remaining tariff on British imports that will ensure complete Free Trade between Great Britain and Canada in five years."

Here is a definite demand for complete free trade between the United Kingdom and Canada, and is the second step towards complete free trade. During the fiscal year ending March 31st, 1919, the duty collected on goods imported from the United Kingdom amounted to $11,164,989. Owing to the war, imports from the United Kingdom fell away after 1914 from the high water mark reached in 1913, when the duty collected on United Kingdom goods rose to $27,158,162. Consequently, as imports from the United Kingdom are rapidly increasing, free trade would eliminate a considerable portion of the revenue of the Dominion Government.

The third demand reads as follows:

(c) "By endeavoring to secure unrestricted reciprocal trade in natural products with the United States along the lines of the Reciprocity Agreement of 1911."

"Unrestricted reciprocal trade" in these products would constitute the third step in the direction of free trade.

The fourth demand reads as follows:

(d) "By placing all foodstuffs on the free list."

It is difficult to determine exactly what is included under the term "foodstuffs," but it is submitted that the following list may be taken as fairly accurate:

Arrowroot.
Biscuits, unsweetened.
Biscuits, sweetened.
Butter.
Beef, fresh.
Beef, salted in barrels.
Bacon and hams cured.
Baking powder.
Barley.
Pearl barley.
Beans.
Buckwheat.
Buckwheat flour.
Brand and mill feed.
Chicory, green.
Chicory, roasted.
Coffee, green, n.o.p.
" green, imported dried.
" extract.
" roasted, not imported dried.
" other.
" condensed with milk.
Cocoa, beans, not roasted, crushed or ground.
Cocoa shells and nibs.
Cocoa paste, unsweetened in blocks.
Cocoa paste, sweetened.
Confectionery, not containing cocoa or chocolate.
Other confectionery.
Cereal food in packages.
Cereal foods, n.o.p.
Corn for distillation.
Corn meal.
Cheese.
Cocoa butter.
Cider, raw.
Cider, clarified.
Corn, canned.
Eggs.
Fruits, preserved in brandy, etc.
Fruits, canned.
Fruits, dried—apples, currants, dates, figs, prunes and others.

Fruits—all kinds, including apples, apricots, pears, quinces, blackberries, gooseberries, raspberries, strawberries, cherries, cranberries, currants, grapes, lemons and limes, melons, peaches, plums, fresh tomatoes, raisins, etc.

Fish.
Gelatine.
Grain, damaged.
Glucose, and grape sugar.
Ginger and spice, unground.
Ginger and spice, ground.
Ginger preserved.
Hops.
Hominy.
Honey.
Hay.
Jellies and jams.

Lime juice, crude, containing more than 25 per cent. proof spirits.
Lime juice, refined only.
Lard.
Lard compound.
Liquoria.
Mustard, ground.
Mustard, French liquid.
Molasses, testing under 35 but not under 20 degrees.
Molasses, over 56 degrees.

Molasses in original packages, produce of foreign countries.
Macaroni and vermicelli.
Malt.
Malt flour.
Malt extract and grain molasses.
Milk food.
Milk and cream, fresh.
Milk, condensed.
Mutton, fresh.
Pork, fresh.
Pork in brine.
Other meats, fresh.
Other meats, salted.
Meats, dried.
Meats, canned.
Meat extracts.
Nutmegs, unground.
Nutmegs, ground.
Nuts of all kinds.
Oats.
Oatmeal.
Olives, in brine, in bulk.
Olives, bottled.
Pickles, bottled.
Pickles, in bulk.
Potatoes.
Potatoes, sweet.
Peas.
Sugar cane, shredded.

Sugar, not above 16 Dutch standard.
Sugar, above 16 Dutch standard.
Syrup and molasses, n.o.p.
Rice.
Rice and sago flour.
Rye.
Rye flour.
Sago and tapioca.
Starch, corn, farina, etc.
Sausage casings.
Straw.
Sauces and catsup, bottled.
Sauces and catsup, in bulk.
Sauces (soy).
Canned tomatoes.
Tapioca flour.
Tea, all kinds.
Vegetables.
Vinegar.
Yeast cakes.
Yeast.
Other bread stuffs.

(*Continued on page* 88.)

The Better Furnished Homes Campaign

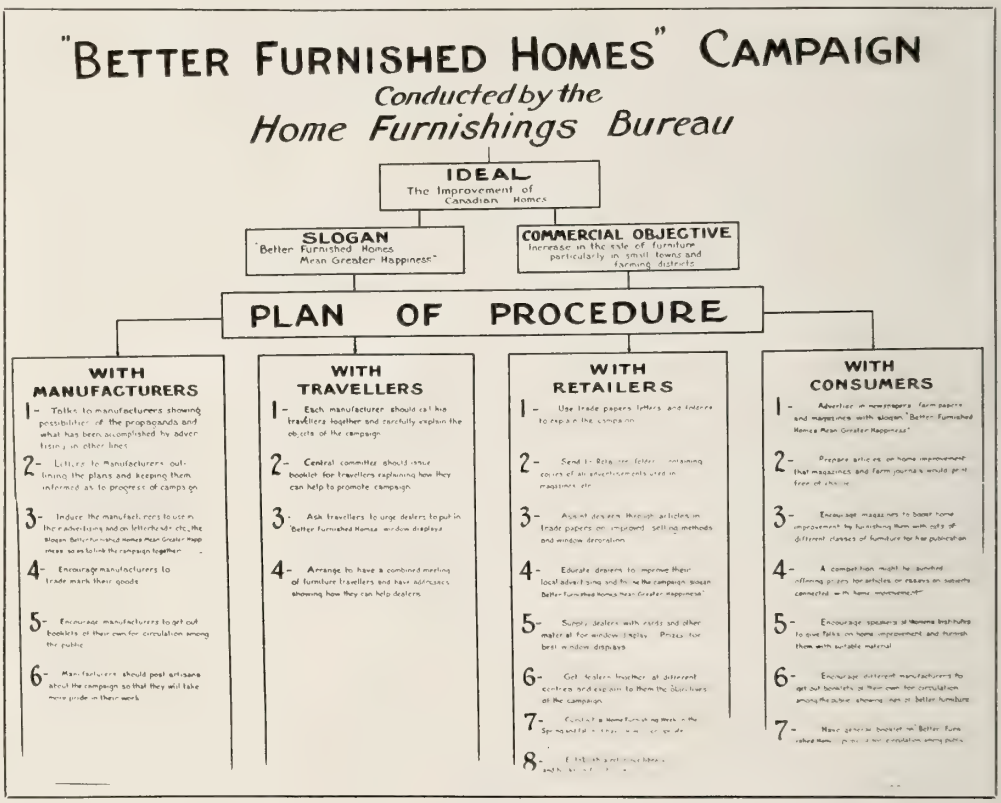
The Plan of the Home Furnishings Bureau—Improving Canadian Homes by Advertising—Increasing the Sale of Furniture by Raising the Public Taste

By J. L. CHARLESWORTH

GREATER happiness! The person or persons who are honestly trying to bring that about are deserving of more than passing interest. The ideal of the Home Furnishings Bureau definitely puts it in this class. "Better furnished homes mean greater happiness," declares its slogan, and as a consequence the ideal is the improvement of Canadian homes.

What is the Home Furnishings Bureau and how can it carry out its plans? are natural questions to ask. The answer to the second is advertising, details of which will be given below. For the first question one must turn back the calendar some six months. The problem of furniture manufacturers has always been the securing of popular appreciation for good work. Every home owner wants his house to be a thing of beauty, but not everyone knows how to make it so. To Mr. Cawkell, secretary of the Furniture Manufacturers Association came the idea that the educational influence of group advertising might do a great deal of good in this direction. The James Fisher Company, Limited, were called into consultation and they drew up the plan of procedure that is shown on this page. The scheme was then presented to a number of furniture manufacturers, and a committee was appointed to look after the details. On this committee are G. W. Gibbard, of the Gibbard Furniture Company, Limited, Napanee, Ont., who is chairman; J. H. Baetz, of Baetz Bros. Furniture Company, Limited, Kitchener, Ont.; W. J. Anderson, of the Stratford Chair Company, Limited, Stratford, Ont.; George Hughes, of the Gold Medal Furniture Manufacturing Company, Limited, Toronto; A. A. Schreiter, of the De Luxe Upholstering Company, Kitchener, Ont., and W. Cawkell, secretary of the Furniture Manufacturers Association. Their deliberations led to the establishment of the Home Furnishings Bureau, with T. Lyle Blogg as manager.

With the organization completed the plan of campaign remained to be worked out in detail. The diagram of this plan is reproduced here. It will be seen that for the purposes of the movement, four lines of endeavour were to be considered; work with manufacturers, travellers and retailers, whose co-operation was essential to the success of the plan; with consumers, because they are the ultimate judges of everything.



Disposition of the Home Furnishings Bureau's Advertising Forces

Manufacturers are seeing the possibilities of group advertising. In the case of furniture a general demand must be created before it is any use advertising a particular line. This general demand can be more strongly influenced by a co-operative campaign than by individuals, if only for the reason that the funds are greater. The furniture manufacturers have been shown what similar advertising in other lines has accomplished and their support of the present movement has been secured.

Travellers are a force that can be used effectively. The traveller from the very nature of his profession must be a persuasive talker and a friend of the retailer. Continually on the move from place to place, he picks up a number of good ideas about methods of selling. These he passes on to the retailer, who is glad to receive the suggestions of wider experience. When the traveller explains to the dealer what the "Better-Furnished Homes" campaign is, the latter is likely to co-operate readily with the Bureau.

Letters and folders explaining the campaign and showing copies of advertisements to be used are going out to retailers. Articles inserted in trade papers to show what improvements can be made in selling methods and window decoration, and a supply of material for window display, with prizes offered for the best efforts, are developments under consideration.

To make sure that all three classes, manufacturers, travellers and retailers, will work together for the achievement of the Home Furnishings Bureau's ideal, meetings are being called at various centres. Here the audiences are addressed by a speaker, who shows what part they can and should play in the

campaign, and the benefits they will derive from it. In addition a reference library of books and magazines dealing with furniture and decoration is being established, so that dealers may consult authorities on matters affecting their business.

That, briefly, is the disposition of the advertising forces which are being brought to bear on the ultimate consumer. In this case every adult in Canada may be looked upon as a possible consumer, for everyone dreams more or less of having a home of his own. But, in the main, the people whom it is necessary to reach are those who already have homes, and might be induced to furnish them more artistically.

Reaching the Farmer

In the cities, where ideas are more quickly disseminated, and examples of well-furnished homes are more numerous, the need for missionary work, while it exists, is not so pressing as in the rural districts. It is on the farms and in the smaller towns of Canada, that one sees the imperative necessity for education in decorative art. That is why the advertising of the Home Furnishings Bureau is being distributed among eleven farm papers and seventy-four Ontario weeklies as well as about 50 daily papers. These go to the rural districts of the Dominion where the need of properly furnished houses is most urgent.

"How ya gonna keep 'em down on the farm?" inquires a once popular song. The dainty lyric expresses a real problem, though probably few who have sung and jazzed to the tune have taken it very seriously. The only possible solution is to make the farm as attractive as the city, and art, like charity, begins at home.

Victorian Horrors

Do you remember the typical Canadian drawing-room of a few years ago, A room hermetically sealed except when "company" called, or weddings and funerals occurred. Here reposed in solemnity and gloom the best furniture, covered with good, durable, shiny, slippery horsehair. The walls made some pretence at gaiety, for flowered paper covered them, and they supported crayon portraits of the heads of the house. In one corner stood a "what-not" containing seashells, souvenir spoons, old Christmas cards—all the rubbish that people collect and hate to throw away. The black walnut centre table, with the family Bible and the photograph album, completed the picture. The officials of the Spanish Inquisition might have been able to design a better torture chamber, though it is doubtful. Any comparison between them and the inventors of the Canadian parlor must nevertheless be in favor of the former; the Inquisitors at least had imagination.

Luckily in the cities we have done away with this kind of room. It is, unfortunately, still to be found in many farm houses. Remember that it is the best room in the house, too good to be used except on state occasions. Can it be wondered that there is difficulty in getting people to go on the farms or to stay if the accident of birth places them there? The problem of rural depopulation is to a large extent the problem of house furnishing.

For this reason the advertisements are designed to carry a special message to the farmers. One of these tells the too-familiar story of the prosperous farmer who invests his profits in barns and machinery instead of in his home. The children leave the farm as a matter of



A Specimen of the Advertising being used to establish the idea of "Better Furnished Homes

course. The reason is found on the father's death when an inventory of the estate is made. The household effects are valued at only five hundred dollars.

Another medium that can be used is the Women's Institute. This society frequently forms the social centre of a rural district and members attend the meetings to hear a lecture on some subject connected with their daily lives. It is hoped that some speakers may be induced to choose home improvement as a subject. The Home Furnishings Bureau will be prepared to supply material for such a lecture.

As a supplement to the work of the Bureau, individual manufacturers are being induced to send out booklets showing better lines of furniture. Retailers will receive suggestions calculated to improve their local advertising. They will be asked to run their own advertisements next to the general advertisement, so that the reader will notice where he can buy furniture at the same time as he is learning about its importance. Above all, retailers and manufacturers are being encouraged to use the campaign slogan, "Better Furnished Homes Mean Greater Happiness." This links them all together in support of the movement.

The Advertisements

One must admit that the organization is almost flawless; the advertisements are visible proof of this. One has been reproduced here, not because it is the best of the series, but because it is typical of several outstanding feaures of the campaign. The design is striking; a frame of carved wood suggesting a mirror, the lines of which carry the eye up to the picture of a charmingly furnished bedroom. Below this is the caption in lettering calculated to be effective without unnecessary obtrusiveness. It is imperative—"Make your home worthy of your own good circumstances." The reader whose attention has first been caught by the pictured room mentally compares it with some room in his own house. The importance of furniture may not have occurred to him before. He reads the argument, and comes to the same conclusion that is stated in italics at the bottom—"Better Furnished Homes Mean Greater Happiness."

Another advertisement of the series approaches the subject from a similar angle, but the appeal is to the desire for national rather than individual happiness. The caption here reads, "Let the homes of Canada reflect the nation's prosperity." When one comes to think of it, what better symbol of prosperity than a well-furnished home can be found? No civilization is worthy of the name unless the people who possess it are living under conditions that make for happiness. Where there are a few mansions and thousands of hovels trouble is bound to come.

Prosperity Justifies Comfort

In Canada, where there are neither the great fortunes nor the great poverty that characterize some European countries, there is not the unrest that is prevalent there. Canadians can always look forward to owning their own houses, and should be willing to make them beautiful. To quote from the advertisement, "the individual earnings of Canadians are greater than those of almost any other race. We are living in prosperous times, and in a country with a glorious future. The new era commencing with the close of the war is proving to be the most progressive and prosperous in the history of the Dominion, and Canadians can well afford to brighten up their homes with better furniture."

The Home Furnishings Bureau is not an ephemeral organization; as its ideal is the improvement of Canadian homes there will always be work for it to do. At present its activities are confined to showing the part furniture plays in an attractive home. Later it will turn people's attention to other details, rugs, curtains, lighting fixtures, etc. The point at issue is the elevation of taste and that cannot be accomplished in a day.

One particular feature in the campaign is the Home Furnishing Week. Throughout the year the objects of the Bureau will be kept before the public eye by advertisements inserted in various papers two or three times a month. In Spring and Fall, when people are housecleaning and redecorating, the Bureau will have a week of intensive advertising. Manufacturers will also run special advertisements and retailers will co-operate with window displays. The success of the Home Furnishing Week will be a gauge for the value of the whole campaign.

Compare Shoe Manufacturers

It is natural to compare this advertising with that of the Shoe Manufacturers' Association. In the latter case the purpose was not to create a demand for shoes, but to get justice for Canadian-made footwear. In the "Better Furnished Homes" campaign, the first thing to be done is to create a demand for furniture of better quality. When this is done it will be time to emphasize the merits of Canadian-made furniture.

The advertising of such an article as furniture must be continuous since most people think of it as a luxury. With the shoe manufacturers all that was required was to bring their case before the public. If necessary it can be done again and no advantage is lost in the interval. If the Home Furnishings Bureau were to drop its advertising for a few months it would have to cover the same ground again when it resumed operations. Its campaign is a process of education. That of the shoe manufacturers is the presentation of a few simple facts.

Group Advertising

Both campaigns are illustrative of the value of group advertising. The proverb that two of a trade can never agree no longer holds good. All manufacturers of the same article have a great deal in common. The matters they wish to bring under the limelight may not all be the same, but there are sure to be enough to make a common cause. It is more efficient to give publicity to those matters through combining forces. The individual manufacturer saves his advertising space for the facts that he wishes to emphasize about his own particular product. The general advertising looks after the more general ideas.



T. Lyle Blogg

Manager of the Home Furnishings Bureau

The advertising of a group can spread over a greater area than that of an individual and is proportionately more effective. If each manufacturer were to paddle his own canoe and advertise in the same papers that they use as a group, he would get little better results than would be gained from the insertion of a single advertisement. The expense to them all would be multiplied by the number of advertisers.

Again, group advertising is a signal benefit to the small manufacturer whose business will not justify a large appropriation for publicity campaigns. Novel

(*Continued on page* 96).

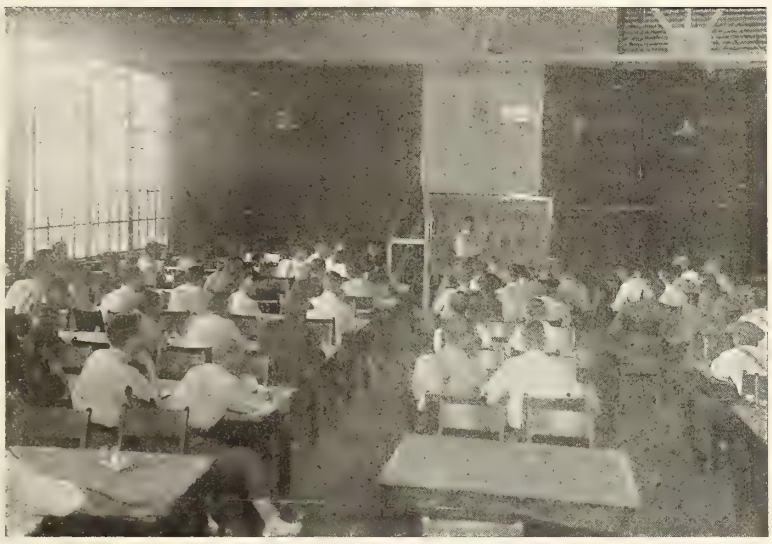
This School Goes Right into the Factory and It's a Success, too

By LYMAN B. JACKES

AM I prepared to go down amongst the employees of my factory or shop and ask them questions relative to finance, physics, mathematics or the nature and source of the raw materials they are working into finished products?

That is the question to keep on the horizon of the vision when considering this "School" which comes right into a Canadian factory and during its short career of six months has justified its continuation.

The subject of education is always a difficult topic of consideration to the worker forced from school during the most receptive period of life; however, the germ of better things is there. Judging entirely from the overflow of workers applying for admittance to various night schools, it is quite safe to presume that a great percentage of Canadian factory workers would develop symptoms of the learning fever if they could be bitten by a book-work.



The School in Action
One section of the 175 workmen listening to a scientific lecture

Night schools fill a great need in the life of any community but they have two disadvantages. The machinery for keeping interest alive between employer and employed, is defective and the time required for attendance cuts deeply into the worker's out-of-business hours and adds to his already strained budget of expenses. Then, too, there is the feeling of uncertainty. The attending workman feels that he is taking all the risk with very defective lines of approach to the authorities in the factory who might recognize his efforts to improve his worth.

The school which is to be described is a serious attempt to overcome the defects of the above. The management set the curriculum. The teachers are well known to them and the school is held in Company time and the scholars paid to attend; but there is nothing compulsory about it. The idea has developed from the theory that future executives often lie latent in the lower ranks of the factory organization, and it is fairer, better and cheaper to develop them than train in new men from the outside.

In designing the course of study two objects were considered over and above enlightening the students on their specific work in the factory. Sufficient geography and economics were introduced to give a satisfactory idea of the sources and nature of the raw materials used; and an amount of science, mathematics and economics worked in. These latter topics were utilized as a means of making the scholars think, for a mind trained to grasp the essentials of a problem and study it from an analytical standpoint is useful in any branch of business. Besides that, a little occular demonstration with some improvised apparatus helped to throw a vast amount of light on the physical principles underlying much of the technical procedure in the plant.

That phase of the work which might be directed to bettering the relations between employed and capital has been considered an intangible asset. It is a subject which cannot be computed in cold detailed facts. But if after trying the experiment for six months it is found that men have learned the intelligent use of reference works for compounding facts for or against any argument; have learned to look on the standard encyclopedias as friends instead of fearsome storehouses of dryness and drought; have developed a liking for good wholesome literature; have seen something of the intricacies of commerce and finance and travelled in far distant lands to witness the screen activities of their fellow-men toiling to produce the raw material all about them in the factory; then their outlook on life must be affected.

In detail it might be mentioned that the school in question is held in the factory of the Goodyear Tire and Rubber Company of Canada, Limited, at New Toronto. The idea took definite development about seven months ago when a young chap, who had just graduated from university, was entrusted with the application of the experiment. His chief qualifications were not enclosed in his academic parchment, but involved in the fact that he had knocked about amongst the British Tommies in the mid-Orient during the late war and had seen, first hand, the effect of interesting education applied as a cure to that boresome disease "Fedupitis."

The first intention was to apply the experiment to certain prospects amongst the non-executive element of the factory. Suspicion, lack of interest and perhaps a tinge of ridicule faced any extension in other directions. Within a few weeks, however, this all melted away and topics involving industrial history, evolution of progress and current events were soon keenly attended by those holding responsible positions in the factory system.

It is an astonishing thing the attitude of the working man to anything that smacks of a university. He finds it difficult to separate that word from association with highbrows, snobbery and a class of recluse who have no connection with the ranks of labor excepting when the aforesaid want money. Once the university man will forget all about the balance of trade between a six-hundred-dollar-a-year professor and a ten-dollar-a-day mechanic, and come forward and seek a meeting with the son of toil, he will

make two interesting discoveries. He will find that the ranks of labor are keenly interested in education and he will receive an insight into the boundless storehouse of latent thought and brain energy which could be developed to the untold gain of the nation. A visit to a class when the unrest of to-day is being studied in the light of history would be ample justification for the above statements.

When the main section of the school was started some difficulty was experienced in knowing just where to start regarding the curriculum. A test examination showed that only a small percentage of workmen have retained the smattering of fractions and decimals that they had received at public school; large numbers on the other hand had not attended school for a sufficient time to become familiar with these topics. Here then was a starting point and it threatened to be a long, tedious obstacle until the men demonstrated their willingness and intention of studying systematically at home if a suitable text-book could be provided. The ordinary treatise on the

EXAMINATION PAPER

1. Draw a section of the rubber tree and name the various parts.
2. What is the average percentage of rubber in latex?
3. What is the operating principle of a Bristol recording thermometer? Name at least two advantages it possesses over the ordinary mercury type of thermometer.
4. If a barometer standing at 29 inches was placed in a vacuum chamber and a vacuum of 28 inches created in the chamber; what would be the effect on the barometer? Calculate its probable reading.
5. Rubber grows in a belt 15 degrees north and south of the equator. How wide is this belt in miles?
6. Between what temperature is rubber air dried?

A typical Examination Paper set after three months' study; 175 men tried the paper. Average marks: 58 per cent.

topic did not meet the requirements. They were replete with examples but famished for information on how to do the examples. The difficulty was overcome by the publication of a special book that was printed on the Company's mimeograph. The order was reversed as the most detailed instructions were included and after a few hours study the men had acquired a first-hand working knowledge of decimals and fractions. Meetings of three or four hours total duration served to clear up any points in doubt and the class was ready to handle problems in percentage, mensuration and proportion that dealt somewhat directly with the routine of the Good year Tire factory.

The mathematical book was followed by a publication dealing with the procedure in the factory. This was compounded by experts in the many phases dealt with by the book and was somewhat technical. It was meant to act as a skeleton for a series of lectures. This study had not progressed far when it was found necessary to introduce elementary chemistry and physics to the curriculum, in order that the workmen students might grasp the fundamental principles of applied science in the factory. Before this little course had been completed the men had a splendid idea of the nature of vacuum production and measurement, compressed air, temperature control and recording, a smattering of electricity and the nature of chemical combinations. The technical studies pertaining to the factory were interspersed with a few lectures on economics and finance. Special effort was made to clear the air regarding the period of reconstruction through which Canada is now passing. This gave the men an insight to the money conditions now in existence and broadened their minds on the subject.

Progressive and encouraging, as was the work amongst the workmen of the plant, it did not surpass the interest taken by the foremen and minor executives once the rough edges had been brushed away and the purpose of the work thoroughly understood. The studies for this section of the pay-roll were necessarily varied, and after some experimental work the course was lined up with a view of leading to a study of labor turnover. An effort was made to reconstruct history and drag from its members the dry dust of dates and persons. These were replaced by a snappy discourse of events in their relation one to another, with social evolution as a backbone to work from. To witness a group of forty or fifty busy factory executives listening intently to a talk from a young university graduate, on the evolution of industry; and then hear the intelligent questions that are brought up in the after discussion, is proof positive

EXAMINATION PAPER

1. What is meant by the term "Bullion"?
2. Name three factors which cause a foreign country to set a discount on Canadian money at the present time.
3. If a stock with a par value of $20 a share, and paying 8 per cent., may be purchased at the present time for 60 per cent. of its face value; what rate of interest will an investor receive if he makes a purchase of this stock?
4. Name one common cause of mill rolls breaking.
5. What is mineral rubber, and where is it obtained?
6. What effect has moisture in compounding materials?
7. What is the meaning of the word "Tensile"?
8. Think back over the historical talks that have been given and name three great gifts that have been made to progress and industry by working men.

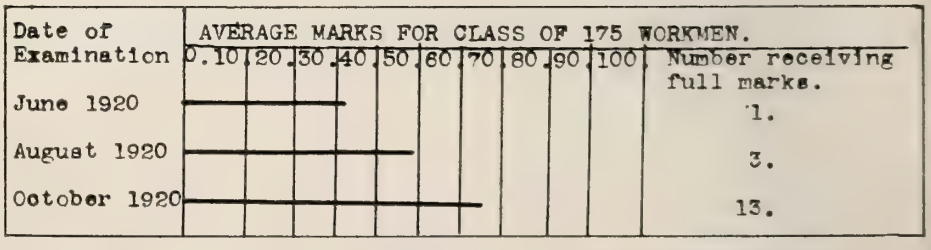
A paper set after five months' study; the same group of men passed this with an average mark of 75 per cent.

that some educational institution in Canada is not doing its full duty to the ratepayers. It is also rather a compliment to the organizer of the work, to have a deputation of workmen stop him in the passageway of the factory and broach the subject of a club, to meet one night a week, possibly in the Y.M.C.A., in which the talks could be extended without encroaching on the Company's time.

"When I consider the atmosphere in which we started just six months ago," the director of the work stated, "it was one of the greatest compliments that I have had thrown at me."

New Electrical Devices

Two bulletins just issued by the Harvey Hubbell Company of Canada, Limited, are descriptive of two new devices which they are placing on the market. These are the Toggle Flush Switch and the Toggle Snap Switch. The bulletins are numbered 16-12 and 16-18, and are for insertion in the company's catalogue, number 16.



What can be done with a factory school. The examinations were more complex as the studies continued.

The Motor Truck as Solution of Industry's Transportation Problem

By ELTON JOHNSON

IN making a survey of his plant and office, in order to re-assure himself that he is using an up-to-date, efficient and economical system in every department, the manufacturer of to-day must give a very considerable share of his attention to his transportation methods.

Probably no item of the manufacturer's costs is more neglected and at the same time has such possibilities of scientific organization as the hauling of his raw materials and finished products. In the average business to-day, transportation is insufficiently organized with the result that operating costs are higher than they need be.

Every manufacturing concern that does any considerable amount of hauling, either by railway, steamship, horse and wagon, or motor truck, should have a traffic manager who should give at least part of his time to co-ordinating all the existing modes of hauling in use by his company, to organizing delivery on the most economical basis and to supervising the purchase and maintenance of the mechanical equipment in use.

For thousands of manufacturers in Canada the motor truck has solved their transportation problems. The development of the use of commercial motor vehicles since the war, in all branches of agriculture and industry, has brought about little short of a revolution in our existing modes of transportation. The next five years, which will undoubtedly see a stupendous growth in motor truck transportation, will produce radical changes not only in the methods of hauling in use to-day but even in the actual distribution of industry.

In Ontario, to-day, there are over 12,000 motor trucks in use. Nine hundred of these are owned by farmers, while the remaining thousands are operated by business men and manufacturers. In the United States, where the growth of this new agency has been more rapid, there are close on to a million motor trucks in operation. Manufacturers of every conceivable commodity are using trucks for bringing in their raw products, for yard work and for the delivery of their finished products. In most cases, co-ordination is accomplished with railway and steamship, but in some instances, the truck has replaced the railway where delivery distances are less than 100 miles.



Facilitating Lumbering Operations

With the great increase in the use of motor vehicles in all branches of industry, a revolution in transportation methods is taking place. Canadian manufacturers are already seized of the value of the motor truck both as a means of handling raw materials and delivering the finished product, and the number of trucks in commercial use is rapidly increasing. In this article some experiences in the use of trucks are given and suggestions are made as to the services in which they can be used to advantage.

It was the war which taught United States and Canada not only the advisability, but the necessity, of transporting freight by means of motor trucks. During the congestion of the railways in the Republic during 1917 and 1918, the manufacturers turned to the commercial car as a solution. Day and night during the war, powerful trucks carried war needs from camp to camp, and from manufacturing cities to the sea coast.

When peace came, the idea of truck transportation remained and automobile concerns began to turn a great share of their attention to the truck end of their business. To-day there are 215 truck-makers—and they are all hard pressed to fill orders. The growth of this new movement has been so rapid that we scarcely realize to-day that a new era of transportation has already arrived.

The motor truck, in the manufacturing field, is becoming more and more an adjunct to production. In Canada, to-day, it is discharging many functions. Its service begins when a building from which will issue production is being erected. It hauls away the dirt from the excavations, brings in materials for construction, delivers the raw material and finally completes its record by carrying finished articles to the point of delivery.

Canadian manufacturers are using the motor truck in the matter of delivery in two ways—first, as an auxiliary agent to the railroad and steamship, and secondly as a definite replacement of all other methods of hauling.

A study of the results achieved by the motor transportation system in use by Telfer Brothers, Limited, biscuit manufacturers, Toronto, will be useful as an example of what firms may achieve in economy, speed and satisfaction by the use of motor trucks.

This manufacturing concern is operating two trucks, both of two-ton capacity, for round trips between these Ontario cities and towns:— Hamilton (40 miles); Welland (85 miles); St. Catharines (72 miles); Niagara Falls (85 miles); Brantford (65 miles), and Guelph (70 miles). Such has been the success attending the introduction of truck delivery, that plans have been completed to extend the scope of their truck delivery to Port Hope, Belleville, Kingston, Lindsay and Peterborough.

Telfers have found that truck delivery is definitely more economical than freight shipping. They estimate that the cost of shipping 100 pounds of biscuits to their wholesalers in Hamilton and bringing back the empty packages is 76 cents. The cost of making the same shipments by motor trucks is exactly one-half, or

36 cents. This sum includes not only the cost of gasoline, oil and the driver's wages, but also the daily depreciation on trucks and tires, the interest on the investment, insurance and labor used in loading.

In estimating the cost of freight delivery, the actual freight rates must not alone be considered. Besides these, and the delivery charges, both in Hamilton and Toronto, the extra cost of labor and material in securely packing and crating the biscuits and the cost of freighting back the empty packages must be reckoned with.

If speed is a consideration in distribution, there is no question but that the truck can deliver goods to a point 100 miles away more quickly than the freight car, which averages only 30 miles a day to the truck's 100. If speed is no consideration; if the products to be shipped are light and bulky and the delivery distance is considerable, it is equally certain that the freight car is the only sensible carrying agent.

The motor truck is an expense every moment it is on the road, and the manufacturer who decides upon trucks as his delivery agent, must in some way, arrange that his cars bring back return loads. If it is not possible to bring back empty packages or crates, it might be practical to make arrangements with firms in the city of delivery to bring back some of their products or to bring in loads of necessary raw materials.

Three hundred miles has often been taken as the limit for an efficient, economical motor truck route, but the Goodyear Tire and Rubber Company is operating a continuous service between Akron, Ohio, and Boston, a distance of 800 miles. A fleet of motor trucks make the round trip in from 6 to 9 days. Each truck is manned by two drivers, one of whom sleeps while the other drives.

With the present poor condition of roads in Canada, it is only possible for the motor truck to compete with the railroads in delivery distances of less than 100 miles and with less than carload lots. "Compete" is not the right word, however, as the motor truck is merely taking away from the railroad, that shipping which is least profitable. Carrying less than carload lots a distance of less than 100 miles is seldom profitable for the steam line and involves costly congestion at the terminals when the whole facility of the road should be turned in that direction where it will always be supreme, namely, the hauling of full carload lots any considerable distance.

Advocates of highway traffic in Canada are in no sense attempting to organize a system of transportation which will be a rival to the existing systems—the railway and merchant marine. They are aspiring to supplement these existing methods in a transportation trinity which will result in increased production throughout Canada. They are interested in arranging a satisfactory relation between all three traffic factors, assigning to each its proper share of this country's hauling. It is in local communication, not in national, that the highways offer an infinite possibility of development. It is a development which should be of the greatest interest to every Canadian manufacturer to-day from a definite business standpoint.

Trucks are built in such a variety of sizes, weights and designs of body, that there is a truck suitable for the needs of every type of manufacturer. That there are only 12,000 motor trucks in use in Ontario shows that many thousands of manufacturers are not yet using this new agency to any considerable extent.

Glass manufacturers, for example, are using trucks to haul both raw material and finished product. Soap is being hauled in trucks, which, on account of cleverly painted bodies, serve also as excellent advertising mediums. The weight of pianos is not too great for the powerfully-constructed truck, and even machinery weighing several tons is being hauled considerable distances by motor.

The chief factor which is holding back increased development of this new transportation agency is the lack of suitable highways in Canada. The proposed highway system for Ontario and the large appropriations for good roads by both the Federal and Provincial Governments should do much to make highway hauling popular with manufacturers. The ideal type of roadbed to stand the strain of heavy duty trucks has not yet been discovered nor has the proper relation between main highways and auxiliary roads been found. Manufacturers everywhere are among the foremost advocates for good roads.

There is no one more interested in motor truck transportation than the Hon. F. C. Biggs, Minister of Public Works in the Ontario Cabinet. He is a strong believer in the possibilities of great development in this movement and is not forgetting the truck factor in his plans for a widespread good roads system in Ontario. He stated that he realized that many of the main roads in his system must be built to stand the strain of heavy duty trucks, and stated that his engineers were working out the problems of construction now. He declared, moreover, that he didn't know what his department would have done this summer and fall without the help of twenty Government-owned trucks.

Heavy Canadian winters are responsible to some extent for the delay on the part of manufacturers in using trucks

(*Continued on page* 92).



Two Trucks Used by a Toronto Firm for Delivering Building Materials

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Kitchener and Waterloo Branch Meeting

A GENERAL meeting of the Kitchener and Waterloo Branch of the Association was held in Kitchener on Friday, October 8th, 1920. The meeting was well attended and proved to be very interesting.

The nominating committee selected at the last previous general meeting for the purpose of recommending the personnel of the Executive Committee of the Branch, proposed that it consist of Chairman of the Branch, J. H. Baetz; Vice-Chairman, H. M. Snyder; W. E. Woelfle, J. Valentine, W. H. Moore, G. Schlee, J. A. Martin, A. R. Kaufman, G. H. C. Lang, Geo. S. Ahrens, O. Kinzie, F. S. Hodgins. This report was unanimously approved.

An interesting discussion followed, and in view of the fact that the Committee of the Cabinet enquiring into the effect of the Canadian Customs Tariff upon the general welfare of the country was then on tour, those present thought that the industrial and agricultural growth of the County of Waterloo might be well taken as an excellent illustration of the beneficent result of a sound national fiscal policy, and it is quite probable that an interesting story may be developed.

Ontario Power Committee Seeks Information

AT a meeting of the Power Committee of the Ontario Division held on October 25th, attention was drawn to the recent request of the Ontario Hydro-Electric Power Commission to users of power to reduce their consumption by 25 per cent. The secretary was instructed to ascertain from the membership whether such restrictions could be effected without serious inconvenience. Accordingly a circular was issued asking for specific information as to the number of h. p. contracted for, the number of h. p. actually delivered and any experience of shortage of power that members might have had. To enable the committee to act, an intelligent understanding of the present situation was necessary, and members were urged to be good enough to answer the questions as fully as possible so that the committee might be fortified by the facts.

Tariff Committee Discussed Tariff Inquiry

A MEETING of the Tariff Committee was held at the head office on October 22, with G. W. Watts, Canadian General Electric Co., Limited, in the chair. The principal business before the committee was the receipt of a report from the manager of the Tariff Department on the hearings of the Tariff Commission in Western Canada. These hearings had been attended by the manager and in his report he summed up results to the present time. The committee also spent some time in discussing the new ruling regarding the valuing of imports in the currency of the country of export. Both matters were made the subject of a report to the Executive Council at its meetings in Montreal.

Legislation Committee Holds Its First Meeting

ON October 22, the Legislation Committee held its first regular meeting for the year, 1920-21, at the head office. C. J. McFarlane, Canadian General Electric Co., Limited, Toronto, the chairman, presided. The first item of business was the addition of new members in order to make the committee as widely representative as possible of the membership of the Association. It was decided to ask the divisional secretaries to make nominations in their respective divisions so that there would be representatives on the committee from each capital city in Canada. Meanwhile a number of new members were added. (See page 138).

The Board of Commerce case was discussed at some length and it was decided to empower the Legal Department to employ such counsel as they deemed necessary to present the argument of the Association before the Privy Council. It was felt that there was no ground for any further declaration of policy at the present time.

It was reported to the committee that the appeal in the company test cases would be heard at the November sittings of the Privy Council in London. The Association is not directly interested in the case, it being carried on by a group of federally incorporated companies for whom F. W. Wegenast is acting as counsel. However the outcome will be watched with interest.

A report was presented to the committee reviewing the progress of minimum wage legislation in the various provinces and bringing information down to date.

Activities of the Montreal Branch in October

THE Dominion Executive Council held its monthly meeting in Montreal on Thursday, October 28th. This was much appreciated, for it makes the members of the Division feel that they are more or less on the Association map when the Dominion Council itinerary brings the meeting to this city. Quebec City is looking forward to a meeting in the near future.

Mr. Louis Loranger, the recently appointed travelling secretary for the Quebec Division, has been carrying the Association gospel into the cities of Quebec and Three Rivers since he took up the work and has been very successful in securing new members.

The Montreal Branch is busily engaged in preparing its case for presentation to the Railway Commission when it meets here on November 10th to hear local evidence touching upon the application of the Bell Telephone Company for the adoption of the measured service system. Messrs. F. W. Stewart, the chairman of the branch; B. W. Coghlin, vice-chairman, and Michael Hirsch have been named a committee to prepare a brief of the Branch and considerable specific evidence has been gathered in this matter for presentation.

The Montreal Branch is lending its support to other commercial organizations in the city in an effort to secure the assistance of the Federal Government in the construction of a second bridge from the Island of Montreal to the South Shore. The outlook is at the present time that this effort will bear fruit as the city is now presenting a united front in the matter.

The quarterly dinner of the branch will be held on November 16th. For this occasion two speakers have been secured, Roger W. Babson of Babson's Statistical Organizations of New York and J. N. Barss of the Shawbridge Boys' Farm and Training School. Mr Babson, who has addressed the branch on a former occasion, will speak on "The Outlook For 1921," and Mr. Barss will address the branch on "The Stuff of Which Men Are Made." A special effort will be made to secure a bumper attendance at this meeting. —R. W. Gould.

Another Section Formed on the Coast

NEWS has been received from the Secretary of the British Columbia Division which may be taken as an indication of the ever-growing appreciation of the services and facilities which the Association is providing for manufacturers of that province.

The brick and tile manufacturers have formed themselves into a Clay Products Manufacturers Section, such section to consist of those manufacturers engaged in this industry in the Vancouver Island district. By thus getting together and considering non-competitive problems of common interest to them all, we predict that much good wil result to the clay products industry in the Vancouver Island district.

Manufacturers Give Fifty-Three Scholarships

AT a meeting of the Education Committee of the Toronto Branch, C.M.A., of which George Brigden, Brigdens Limited, is chairman, it was reported that, for the session of 1920-21, fifty-three scholarships of $25 each were being donated to the Central Technical School by the manufacturers of Toronto. This is the largest total in the history of the scheme and shows how keenly alive the manufacturers are to the importance of encouraging technical education. The C.M.A. scholarships are awarded by competitive examination and give the student a three-year industrial course at the school. This year for the first time two students have decided to take the course in optometry.

Trade Commissioner Speaks on Industries Fair

CAPTAIN EVAN J. EDWARDS, H. M. Senior Trade Commissioner for Canada and Newfoundland, left Montreal recently for a tour of the West, during which he will address boards of trade and other interested bodies on the subject of the British Industries Fair. Starting at Winnipeg, Captain Edwards was scheduled to speak at Regina, Saskatoon, Edmonton, Calgary, Victoria and Vancouver. After his return to Montreal, he wil speak before a number of trade bodies in Eastern Canada.

As already noted in INDUSTRIAL CANADA the British Industries Fair will be held in London and Birmingham from February 21 to March 4, 1921, and in Glasgow the week following. Though held in different cities, it is all one Fair and is so arranged that any one may take in all three. In some cases this is necessary as in no instance are the same goods exhibited at two of the Fairs. For the most part, however, care is taken to see that industries are so grouped that travelling will not be necessary.

Some Recent Visitors to Association Office

SEVERAL interesting visitors have recently called at the head office of the Association in search of information and advice. Officials of the Commercial Intelligence Department have received them and done all in their power to assist them in obtaining their object. From the register of the Department, the following names are taken as indicating the widespread nature of the services rendered.

G. J. M. Simons, foreign editor of the *Telegraaf, Courant* and *Maandag Ochtenblad* of Amsterdam, Holland, called in the interests of Holland's International Industries. Fair to be held in Utrecht, September 6 to 16, 1921. Mr. Simons hopes to see a number of Canadian manufacturers interested in the Fair, for it will be open to all foreign manufacturers and their products. He will keep the Commercial Intelligence Department posted on developments.

G. V. M. Heriot, of Heriot Bros., Buenos Aires, Argentina, import and export agents, wanted information as to Canadian manufacturers who would be interested in selling their goods in the Argentine. He reports a strong desire on the part of people in his country to get Canadian goods, purchases hitherto having been largely confined to Great Britain and the United States. Mr. Heriot left a subscription for INDUSTRIAL CANADA and the *Canadian Trade Index* as an indication of his interest.

Wm. A. Cloutman, an Englishman who has lived for eleven years in Chile, visited the office recently in company with T. C. Douglas, Amherst, N.S. Messrs. Cloutman and Douglas have formed the Trades of Canada, Limited, with the object of promoting trade between Canada and Chile. Mr. Cloutman says that very little Canadian goods are at present being imported into Chile, but he has hopes of developing business between the two countries.

R. J. Laird, Laird Agency Co., machinery merchants and agents, Auckland, N.Z., came with a letter of introduction from the Canadian Trade Commissioner in New Zealand. The Department was able to put him in touch with several manufacturers in whose products he was interested.

J. Menzies, West Indian Agency, Georgetown, British Guiana, wanted connections with flour mills, hosiery, underwear and wall paper manufacturers and was furnished with lists.

Arthur M. Holmes, Wellington, N.Z., was particularly interested in paper goods and was placed in touch with manufacturers of these lines.

Richard Whichello, of R. Whichello & Co., Rio de Janeiro, Brazil, was looking for connections with machinery manufacturers.

Guillermo E. Rohda, Rohda & Co., Guayaquil, Ecuador, a chocolate planter, visited Canada in order to find a market for chocolate. He had previously sold in Great Britain but was feeling out for larger markets. He was put in touch with Canadian chocolate manufacturers.

Alberta Manufacturers and Factories Act

APPEARING before the Committee of Inquiry appointed by the Government of Alberta to inquire into the working of the Factories Act, C. A. Pratt, chairman of the Medicine Hat Branch, C.M.A., presented the following memorandum on behalf of the manufacturers of the province:—

The manufacturers of Alberta wish, in the first place, to call attention to the fact that two national conferences have been held at Ottawa dealing with labor legislation at which a number of recom-

mendations were made which were concurred in unanimously by workers, employers and representatives of the Provincial Governments, and wish to also call attention to the fact that one International Labor Conference has been held in which Canada participated at which unanimous recommendations for labor legislation were made.

The outstanding conclusion arrived at by all these conferences was that labor legislation in different countries as well as in the different provinces of any particular country should conform to certain well recognized international standards, and that a general uniformity should be aimed at in the main provisions.

Uniform Legislation.

The Canadian National Conferences have both been unanimous in recommending that all the provinces of Canada proceed along similar lines and enact uniform legislation. The reasons for this are very apparent. Fair conditions cannot be different in different provinces in connection with the same industries, and the industries in one province are subject to direct competition by the industries in another province, with the result that any province that seeks to embody restrictions which are not imposed in competing provinces, works a great hardship not only on the manufacturers of the province but on the workers as well by driving work, which would otherwise be done in that province, to other provinces.

Best Practice Sought.

Labor Legislation should not as a rule embody special features which have not commended themselves as the best practice to workers' associations and employers' associations as a whole, and, particularly in a province like Alberta, where industry is very gradually coming into its own, employers should not be subject to restrictions which are not even asked for by organized workers in other provinces and other countries.

We append to this memo the recommendations passed at the three labor conferences, which we have referred to, and we urge that the features of the Alberta legislation which are novel and experimental be eliminated and the legislation be made to conform to the best standards adopted by the leading employers' and workers' associations of Canada.

We wish to call attention to the following special respects in which Alberta legislation has been prejudicial to the interests of both employers and workers in Alberta in so far as it has been enforced and to also point out certain legislative enactments which have been found to be unworkable.

Minimum Wage Legislation.

No province, except Alberta, has attempted to establish minimum wage legislation for adult male workers.

As a comprehensive treatment of this subject has not yet been worked out in any country, and there is no demand in Canada, so far as we are aware, for minimum wage legislation for male workers, and while at the present time no harm results from the minimum fixed in Section 24, of the Alberta Factories Act, we wish to point out that this is a subject which should not be dealt with in connection with the Factories Act legislation, but should be reserved for separate treatment after national conferences shall have determined upon the most feasible procedure.

Women's Wages.

Sections 24 to 27, together with Section 26A of the Act as amended in 1919, deal with minimum wages for women and the conditions under which women may be employed. The two national labor conferences, above mentioned, have unanimously recommended that the conditions under which women work, including minimum wages, should be determined by minimum wage boards, upon which both the employers and the workers have equal representation. The board should have power to make special regulations to meet special conditions which exist in each locality, and all regulations before having the force of law should receive the approval of the Lieutenant-Governor-in-Council.

The best legislative practice is embodied in the Manitoba Minimum Wage Act, which almost immediately after its passage was enacted by the Province of Saskatchewan, and which at the last session of the Ontario Legislature was adopted by that province. All the orders made in Manitoba have been concurred in unanimously by both employers and workers and the act has given general satisfaction. As conditions change the regulations can be speedily changed to conform to the new conditions and the Board itself, by means of its inspectors, exercises a constant supervision over the well-being of the worker.

We are of the opinion that Section 26A as enacted in 1919, by which the chief inspector in any town or city, upon the recommendation of the local advisory committee, may make regulations, while in general harmony with the principle of the act recommended by the national conferences, should be amplified in order to give to the local boards full power, and that all regulations should be subject to the approval of the Lieutenant-Governor-in-Council.

We are inclined to think that a number of independent advisory committees in the different cities and towns in the province will not secure as satisfactory results as would be secured if one board were charged with the matter, so that the regulations as far as possible may be uniform throughout the provinces so far as conditions warrant.

Hours of Labor.

The provisions embodied in the Alberta Act, Sections 24 to 27, regarding shifts, places a hardship on Alberta manufacturers. The whole subject of working hours and night work was discussed at the International Conference at Washington, and recommendations have been made on the subject by the League of Nations which have been received by the Dominion Government from the International Labor Office, and we understand have been presented by the Dominion Government to the various provincial governments in order that, as far as possible, uniform and fair legislation, limiting hours of labor, may prevail throughout Canada.

In the material attached to this brief will be found the international recommendations on this subject and we urge that the unusual provisions as to day and night shifts now in force in Alberta be repealed and that legislation in harmony with the international recommendations be enacted to take their place.

The principal difficulty under the present Alberta law arises from the fact that a worker who has been engaged on a day shift, even for a few hours, cannot be employed on the following night shift. This unusual provision fails entirely to secure the purpose for which it was apparently intended, of making certain that no worker should work more than a certain number of hours per day. The whole matter has been dealt with in great detail by the International Labor Conference, and we wish to urge that the Alberta legislation be made to conform with that which the other provinces may, after conference, decide to adopt in order to carry out Canada's obligation as a member of the League of Nations.

Employment of Children.

The Alberta Act contains a number of novel enactments in this regard which are out of harmony with those contained in the Ontario Act. At this point we wish to refer to the attached memo, and also to refer to the recommendations of the International Labor Conference referred to above and also attached.

In this connection it is important that a uniform practice regarding conditions and ages at which young persons are to be allowed to work should prevail throughout Canada.

Respectfully submitted.

Ages of Children.

The Alberta Act summarily enacts (S. 24) that "No child shall be employed in any factory, shop, office or office building," "child" being defined as "a person under the age of fifteen years." In all the other provinces the age limit is fourteen years, except that in Manitoba and British Columbia the limit for girls is fifteen years.

In Ontario, Nova Scotia and British Columbia there is a relaxation of the age limit in certain occupations such as canning and under certain conditions. In Ontario a second age minimum of twelve years is fixed for these cases, but in Nova Scotia and British Columbia there is no such second minimum. In Ontario the relaxation extends, subject to certain conditions, to shops.

Distinction Made.

The acts of all the provinces except Alberta make a distinction between a "child" (i.e. a child under fourteen) and an intermediate class of "young girls" up to eighteen years of age. This intermediate class includes in Ontario "youths" from fourteen to sixteen, in Manitoba "boys" from fourteen to seventeen, and in Saskatchewan "youths" from fourteen to sixteen. Special restrictions are imposed upon the employment of persons of this intermediate class. In the Alberta Act this class of persons is treated either under the head of children and prohibited from working or under the same rule as adult male employees. In the Alberta Act on the other hand many of these special provisions are made applicable to all workmen. The practical effect of these provisions is to prevent the employment in any factory, shop, office or office building, of any boy or girl less than fifteen years of age for any purpose whatever.

Age Arbitrarily Raised.

Thus, for instance, the age limit in the definition of "child" is arbitrarily raised from fourteen to fifteen years. The carefully worked out provisions of the Ontario Act distinguishing between "child" and "young girl" and "youth" are wiped out as well as the elastic provisions for the employment of children between twelve and fourteen years of age at certain seasons of the year in the picking and preparation of fruit and vegetables. Further, the provisions specially introduced for the protection of children and young girls under the Ontario Act are worked over into provisions applicable to all workmen in the Alberta Act. Thus the provisions respecting hours of employment, which in the Ontario Act are applicable only to children, youths, young girls and women are in the revised form in the Alberta Act made applicable to employees generally. The provision for keeping a register for children, youths and young girls in the Ontario Act appears in the Alberta Act as a provision for the registration of all employees. The provisions of Section 12 of the Alberta Act were in the Ontario Act applicable only to the employers of children, youths and young girls. Subsection 2 of Section 26 was in the Ontario Act applicable only to children, youths, young girls and women and the same applies to Subsection 3.

At Edmonton.

When the Commission sat at Edmonton C. G. Robson, chairman Edmonton Branch C.M.A., presented the following memorandum along somewhat similar lines:—

The manufacturers of Edmonton appreciate very kindly this opportunity the Government has given them of expressing their views on labor legislation before this Commission and wish you to convey to them our sincere thanks for the privilege.

Two national conferences have been held at Ottawa on labor legislation, at which a number of recommendations were made and concurred in unanimously by representatives of both employees and employers as well as by representatives of provincial governments. One international conference has also been held at Washington, in which Canada participated at which unanimous recommendations for labor legislation were adopted.

The outstanding conclusion arrived at by all those conferences was that labor legislation in different countries as well as in the different provinces of any particular country should conform to certain well recognized international standards and that a general uniformity should be arrived at in the main provisions.

The Canadian National Conferences have been unanimous in recommending that all provinces of Canada should proceed along similar lines and enact uniform legislation. The reasons for this are very apparent. Fair conditions cannot be different in different provinces in connection with the same industries, and the industries in one province are subject to direct competition by the industries in another province, with the result that any province that seeks to embody restrictions that are not imposed in competing provinces works a great hardship not only on the manufacturers of that province but on the workers as well by driving work which would otherwise be done in that province to other provinces.

When the manufacturers of Alberta waited on our worthy Premier and his cabinet last spring and urged that no greater burden be placed on Alberta manufacturers than that existed in other provinces with whom we are in competition, he expressed himself in favor of uniform legislation in the different provinces.

Not be Restricted.

Labor legislation should not as a rule embody special features which have not commended themselves as the best practice to workers' associations and employers' associations as a whole, and, particularly in a province like Alberta, where industry is very gradually coming into its own, employers should not be subject to restrictions which are not even asked for by organized workers in other provinces and countries.

We wish to call attention to the following special reports in which Alberta legislation has been prejudicial to the interests of both employers and workers in Alberta in so far as it has been enforced, and to also point out certain legislation enactments which have been found to be unworkable:

Minimum Wages.

1. No province except Alberta has attempted to establish minimum wage legislation for adult male workers. While no harm has resulted from the minimum fixed in Section 24-2 of The Alberta Factories Act, it is submitted that this is a subject that should not be dealt with in conection with Factories Act legislation but should be reserved for separate treatment after national conferences shall have determined upon the best possible procedure.

2. The provisions embodied in the Alberta Factories Act, Sections 24 to 27, regarding shifts, places a hardship on Alberta manufacturers. The whole subject of working hours and night work was discussed at the International Conference at Washington and recommendations have been made on the subject by the League of Nations which have been received by the Dominion Government from the International Labor Office. We understand copies have been presented by the Dominion Government to the various provincial governments in order that as far as possible uniform and fair legislation limiting hours of labor may prevail throughout Canada. We urge

that the unusual provisions as to day and night shifts now in force in Alberta be repealed and that legislation in harmony with international recommendations be enacted to take their place.

3. Section 2-b. A child is defined as a person under fifteen years of age. In the other provinces, with two exceptions, a child is defined as a person under fourteen years of age. Manitoba and British Columbia set the age limit for girls at fifteen. The aim of the League of Nations is to reach Canada's standard of fourteen years.

Employment of Children.

4. Other provinces make provisions for the employment of children under certain restrictions; Alberta excludes them entirely. Section 24 (no child shall be employed in any shop, factory, office or office building).

5. In Section 26-a Alberta Factories Act, power is given to determine the amount that shall be paid to any person under the age of eighteen. The other provinces have not set a scale of wages for youths, it being generally conceded that they can look after themselves.

6. Section 24-2. In other provinces that deal with minimum wages and hours of labor for females there is no statutory enactment as to the amount of wages, the hours of labor or the number of apprentices, these three matters being left to the discretion of a minimum wage board in each province.

Minimum Wage Boards.

7. The two national labor conferences have unanimously agreed that hours of labor and minimum wages for women should be determined by minimum wage boards at which employees and employers should have equal representation. Such boards have been set up in Manitoba, Saskatchewan, Ontario and British Columbia. In our opinion the best legislative practice is embodied in the Manitoba Minimum Wage Act, which almost immediately after its passage was enacted by Saskatchewan and which at the last session of the Ontario Legislature was adopted by that province. The Board is composed of five members, and as it has to deal with minimum wages and hours of labor for female workers only one of the two representatives appointed by each employer and employee must be a lady. The chairman must be disinterested and not directly or indirectly connected with employees or employers. All the orders made in Manitoba have been concurred in unanimously by both employers and employees and the Act has given general satisfaction. As conditions change the regulations can be speedily changed to conform to the new conditions. This is a very important feature. The Board itself by means of the inspectors exercise a constant supervision over the wellbeing of the workers.

We cannot urge too strongly the necessity of uniform labor legislation and a uniformity of its application in all the provinces. We believe it is to the best interests of workers and employers that this great province of Alberta should be developed to its fullest extent. This cannot be done if legislation is placed on the statute books which places a greater burden on Alberta manufacturers than exists in other provinces. Both employers and employees will suffer as a result.

In conclusion, it appears as if constitutional government is being impinged by Orders in Council in many of the provinces, Alberta included, as well as in the Dominion as a whole. This method of legislation is being freely criticized on the hustings and in the press at the present time. If the Orders-in-Council are to meet with popular approval care will have to be taken to see that they are wholly in the interest of both employer and employee as their interests are so co-ordinated that injury to one will work injury to the other.

Respectfully submitted.

Tariff Department Bulletin

Important Announcements Regarding Tariff Matters, Including Details of Excise Tax Licenses

Board of Customs Decisions.

Tissue paper, per sample, for making newspaper mats, declared to be dutiable under tariff item 147, at the rate of 25 per cent.

"Autoshaver" and "No. 5 Steam-Heated Pneumatic Matrix Drying Press" declared to be entitled to entry under tariff item 441 as free of duty. (In effect from 12th October, 1917).

Departmental Rulings.

Canfield and Taco governors, canopies, fenders, mud guards and road bands, made by independent concerns for use on the Fordson tractor, and not being parts of the tractor as produced by the manufacturers, are not entitled to entry as "repairs" under the Order-in-Council set forth in Memo. 2280-B.

Typewriters brought in by bona fide tourists, resident in Canada for summer months, may be admitted as tourist's outfit under Form E 29. This does not apply to typewriters brought in by commercial travellers or others for business purposes.

Customs Valuation of Depreciated Currency.

In the October issue of INDUSTRIAL CANADA reference was made to the recent rulings of the Department of Customs in respect of foreign currencies and the valuation of same for duty purposes.

The Tariff Department has issued a Circular Letter (No. 277), which has been sent to all members of the Association, dealing with the question. The Circular contains an explanation of the Customs requirements in the matter of foreign paper currencies which have a depreciated value and how the depreciation is to be determined for Customs purposes.

Excise Tax Licenses

The Department of Customs and Inland Revenue state that licenses are obligatory. November 15th, fixed as time limit within which time licenses must be obtained. Act provides penalty for neglect or refusal to take out the required license.

Reference was made in the last issue of INDUSTRIAL CANADA to this question of licenses; and the various classes of licenses and by whom the same must be obtained was therein set forth. A circular letter was sent to all members of the Association by the Tariff Department during the latter part of October, drawing attention to the necessity for obtaining licenses prior to the 15th November. As the matter is important we mention hereunder the two classes of licenses in which manufacturers are chiefly interested:—

Sales Tax License,—to be taken out by every manufacturer, wholesaler, and jobber who sells articles subject to the sales tax. Annual fee, $5.00.

Manufacturers' License,—to be taken out by persons, firms or corporations manufacturing the following commodities for sale, viz.:—Chewing gum, boats, canoes, yachts, motor boats, cameras, confectionery classed as candy or a substitute for candy, firearms, shells, cartridges, pianos, organs, mechanical player pianos, phonographs, talking machines, music boxes, records, musical instruments, chandeliers, gas and electric light wall brackets and fixtures, automobiles, playing cards, wines and other spirituous liquors.

Note: This Manufacturer's License is not required unless his factory products are subject to the so called "Excise Manufacturing Tax." For example, cameras are only subject to an Excise Manufacturing Tax when weighing one hundred pounds or under. Thus, if there were a manufacturer who only made cameras of a weight greater than 100 pounds, he would not be required to take out a "Manufacturer's License." It is suggested that persons or firms manufacturing these commodities for sale, should carefully examine the provisions of Sub section 4, Section 19-BB of the Act in order to determine whether or not they should take out this manufacturer's license. The provisions of this subsection will be found on pages 18 and 19 of Excise Tax Pamphlet (Association's Circular No. 266). The annual fee for this license is $2.00.

NOTE:—This license should not be confused with the Sales Tax License. Manufacturers who are required to take out a *Manufacturers* License will also be required to take out a *Sales Tax* License, as the two taxes are entirely separate and distinct from one another.

Notice to Exporters to United Kingdom.

New regulations respecting preferential duties on commodities containing sugar and raw cocoa exported from Canada to United Kingdom.

The Customs authorities of the United Kingdom have issued a revised notice for the information of importers in Great Britain and of exporters in British Overseas Dominions in regard to the British Preferential Tariff.

There has been no change in respect of the Certificates of Origin heretofore approved but an additional form of certificate is now required where the dutiable article in respect of which preference is claimed is an ingredient only of a complete composite article which is liable to duty only by reason of containing the dutiable ingredient.

For example, manufactured cocoa powder is chargeable to duty in respect of the raw cocoa it contains and the new form of certificate should be made by the manufacturer, supported by the previously approved form of certificate given by the grower, producer or supplier of the raw cocoa.

Chocolate confectionery is chargeable in respect of the raw cocoa and the refined sugar it contains and the new form of certificate should be given by the chocolate maker, supported by the previously approved forms of certificates given by the grower, producer or supplier of the raw cocoa and by the sugar refiner.

Jam and condensed milk (sweetened) are chargeable by reference to the sugar they contain and the new form of certificate should be given by the manufacturer supported by the previously approved form of certificate by the sugar refiner.

Information as to the regulations and the approved forms of certificates of origin may be obtained from the Tariff Department of the Association.

Reply to the Arguments Advanced for Reduction of the Tariff

(Continued from page 75.)

The total value of the foodstuffs mentioned above, and imported in 1919, amounted to $84,313,672, and the duty collected was $17,952,394. This amount of revenue would, of course, be lost to the Dominion Government if these foodstuffs were placed on the free list. Moreover, the producers of Canadian goods, with which such imports compete, would lose the tariff protection they now have.

The fifth demand is as follows:

(e) "That agricultural implements, farm and household machinery, vehicles, fertilizers, coal, lumber, cement, gasoline, illuminating fuel and lubricating oils be placed on the free list, and that all raw materials and machinery used in their manufacture also be placed on the free list."

This is the fifth step advocated by the Canadian Council of Agriculture's platform in the direction of free trade. The values of imports of the finished goods enumerated, and the duty collected during the year 1919, follow:

	Value.	Duty.
Farm implements and machinery	$8,044,000	$1,572,885
Vehicles	28,848,864	6,321,569
Fertilizers	984,808	98,473
Coal, bituminous	44,411,207	7,595,032
Lumber	140,439	32,460
Cement	26,437	2,667
Petroleum, illuminating fuel, etc.	8,824,894	1,366,767
Total	$94,280,649	$16,989,853

In addition, the clause calls for the removal of the duty now collected on imported raw materials, and machinery for the production of the above goods.

Owing to the indefinite wording of the first demand, it is impossible to estimate what its effect, if put into operation, would produce on the Federal revenue. The same is true of the third demand. But, considering only the second, fourth and fifth demands, except the latter part of the fifth, we find that these demands, which are only part of the general demands for tariff reduction, taking 1919 as a basis, would have caused losses of Federal revenue as follows:

Clauses.	Loss of revenue resulting
Clause "B"	$11,164,989
" "C"	17,952,394
" "E"	16,898,853
Total	$46,107,236

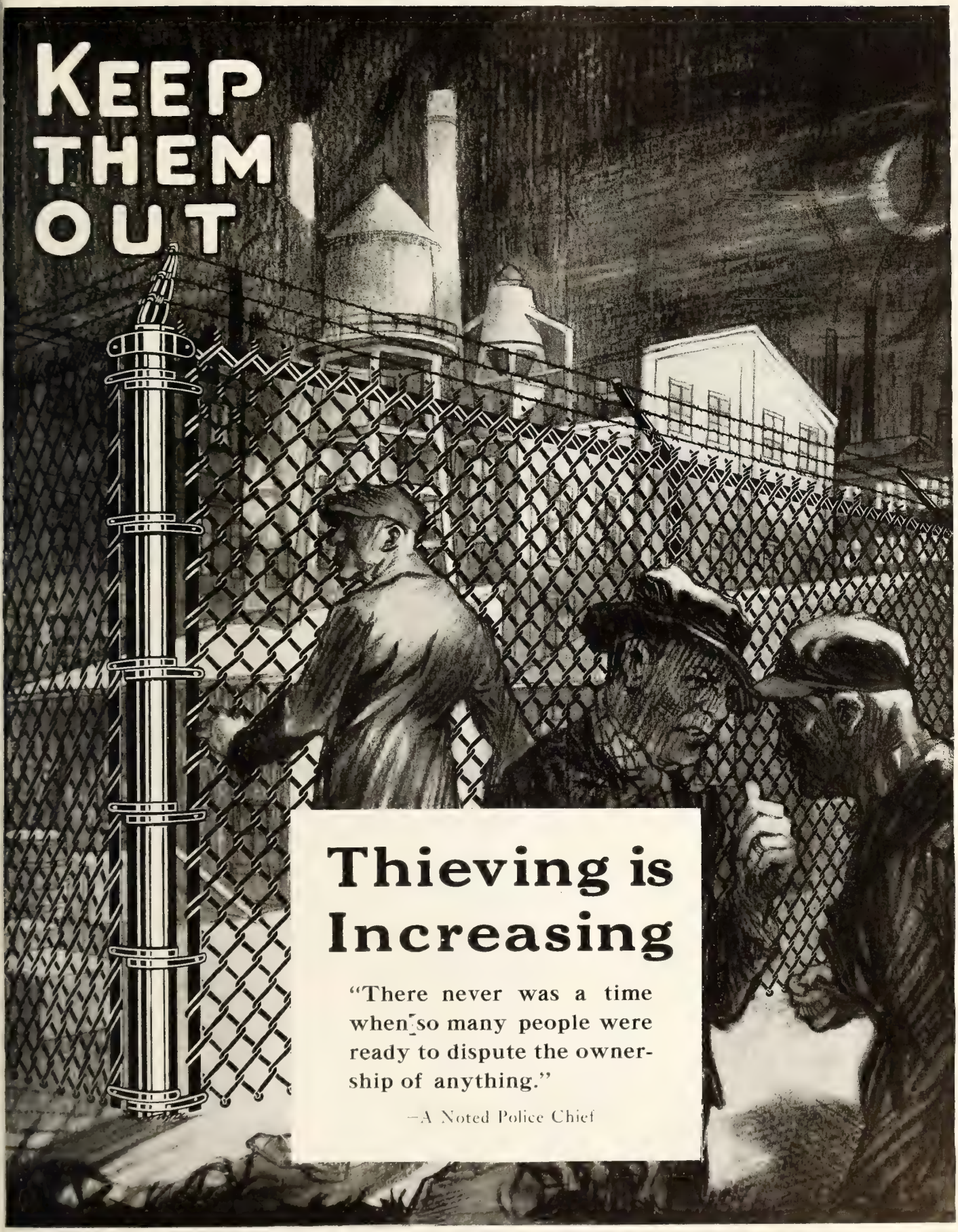
If the pre-war figures for 1913 are admitted in clause "B" amounting to $27,158,162, instead of $11,164,989—the total loss of revenue caused by putting these demands into operation would have been $62,100,409.

And again, it is pointed out that this loss of revenue does not include clauses "A", "C" and the latter part of "E" which together might easily double the loss. Consequently, if all the tariff proposals set forth officially by the platform of the Canadian Council of Agriculture are put into operation, there will not be much left of the Canadian Customs Tariff, or of the revenue now collected by it, and Canada will be very close to free trade.

It is fitting to point out that the Canadian Council of Agriculture proposes to reduce in this drastic manner a tariff which now imposes an average rate of duty on dutiable imports that is actually lower than the average rate in the year before the National Policy tariff became operative. The Canadian average rate of duty on dutiable imports has been much lower than the average rate for the United States up to the year before the war. The Underwood tariff made a very considerable reduction, but for 1919 the United States average rate was still 21.3 per cent., or only slightly below the Canadian average.

In conclusion, we beg to repeat again the closing paragraph of the general statement of the Canadian Manufacturers Association submitted at the first hearing in Winnipeg:

"In the course of this statement an effort has been made to show that manufacturing in Canada is inseparably connected with other industries; that two million wage-earners and dependents secure their living through manufacturing, and that the most of the remainder of the population derive indirect benefits; that this country as a whole has made remarkable progress under the National Policy of protection; that, with the entire world swinging towards protection, Canada cannot relinquish it; that the revision of the tariff should be scientific and take into consideration the requirements of all classes, that a stable fiscal policy of protection with some assurance of permanence is of vital need; and finally, that the aim of the fiscal policy, determined as a result of this tariff inquiry, should be to advance Canada towards her destiny as a fully developed nation with the British Empire."



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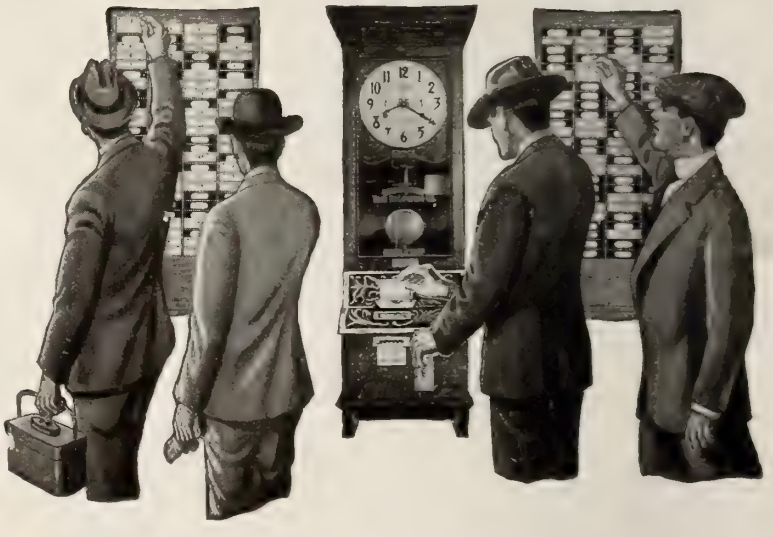
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Discipline implies a sense of punctuality, of responsibility, of order, of clean-cut willingness to do with all one's might whatever one's hand finds to do.

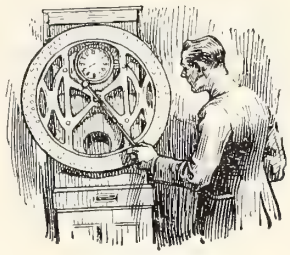
Probably the most elementary and most important of these factors in the creation of discipline is PUNCTUALITY. Getting the employee to the plant — nay, right to the bench or lathe (ON TIME), and having him leave on time—not before—not after.

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LONDON, 489 Richmond Street
WALKERVILLE, 44 Lincoln Road
WINNIPEG, 227 McDermott Avenue
VANCOUVER, 110 Water Street

Also manufacturers of International Dayton Scales and International Electric Tabulators.

Synopsis of Proceedings Before the Tariff Commission

(*Continued from page* 67).

Edward Parnell, on behalf of the Prairie Division, C.M.A., read a statement on the incidence of the income tax.

Josiah Bennett, Pine Creek, told how the tariff, in his opinion, hit the man with the large family.

J. R. K. Bristol, on behalf of the Canadian Manufacturers Association, dealt with a number of points that had been raised against protection.

W. D. Bayley, M.L.A., for Assiniboia, presented a socialistic argument against tariffs of any kind.

FORT WILLIAM.

October 16.—Colonel Ray, representing the Board of Trade of Port Arthur, asked that Mr. J. E. Marks, secretary of the Board, be permitted to read a brief dealing with the iron and steel industry of Canada. This led up to a resolution of the Board asking for a bounty on all Canadian iron ores mined and marketed.

R. J. Manion, M.P., spoke in support of the development of natural resources. J. J. O'Connor, on behalf of private owners of ore lands, presented a memorandum of iron *re* mining and how an adequately developed iron and steel industry was essential to industrial independence in Canada.

G. R. Duncan, president, on behalf of the Fort William Board of Trade, dealt also with the iron question.

M. Francis, on behalf of the Port Arthur Board of Trade, dealt with the industrial development of Port Arthur and supported adequate protection.

A. E. Cole, barrister-at-law, Port Arthur, purporting to speak for the general public and disclaiming any intention of speaking other than from a purely unselfish standpoint, launched into a vigorous attack on protection.

SAULT STE MARIE.

October 18.—John A. Hussey, president of the Sault Ste. Marie Board of Trade, presented facts relating to the development of low grade iron ore deposits in Canada and asked for a bounty.

G. S. Cowie, Secretary Mines Department, Algoma Steel Corporation, answered a number of questions relative to the development of iron ore.

W. C. Franz, president Algoma Steel Corporation, told of the business of the corporation.

J. H. Haining gave the viewpoint of the Independent Labor Party, which was the gradual elimination of all import duties on necessaries. J. J. Brothers, another labor man, thought there should be protection in some instances.

The Motor Truck as Solution of Transportation Problem

(*Continued from page* 82).

as haulage agents. The laying of suitable roads will eliminate the winter hold-up problem to a considerable extent.

The factors upon which depend an economical transportation system for any manufacturing concern are many. The first is the agent to be used—whether railway, steamship, horse and wagon or truck. The location of the plant, the commodity to be shipped, the quantities at each shipment and the distance to the receiving point will decide this question. When motor trucks are used, the actual layout of the yards and the efficient working of the actual loading system are important items if economy is to be obtained. Standardized motor equipment if parts are to be easily exchangeable is an absolute necessity.

Care taken in the directing of truck movements will pay big dividends. The truck must not waste time getting to its destination, and there must be no overlapping if a fleet of motor trucks is operated. The zone system of delivery is seldom economical, as a truck should never leave the yards without a full load. The return load ensures payment for the return trip. Truck drivers, moreover, should be chosen with as much care and taught with as much precision, as locomotive engineers. Daily supervision of equipment is essential to economical maintenance. Ten years is not an outside figure for the life of a well-constructed truck, provided care is always used in maintaining it at a high rate of efficiency.

With the advent of motor truck hauling, a manufacturer may now for the first time learn his actual transportation costs. By using an efficient cost system, a manufacturer may be able to find out every detail of his delivery costs and put his finger on the point where waste is lessening his profits.

After a century of neglect, the highways of Canada are coming back into their own. Freight is being moved by road, not in the small wagons hauled by slow-moving horses, but in great, powerful motor trucks. Highway, waterway and railway, are being linked together in a transportation trinity which is solving successfully Canada's transportation problems.

A Canadian Sales Service

Sales Corporation Establishes Important Office in New York

The Canadian Manufacturers Sales Corporation have just taken up quarters in the Bush Terminal Sales Building, New York. Mr. Bush's idea of co-operation in distribution, which was his basic idea in establishing this sales building, is carried out by this corporation in their praiseworthy effort of cutting down the trade balance against Canada, in favor of the United States.

This balance as it at present stands, is that Canada is only selling $500,000,000 worth of goods to the United States, while the United States is selling to Canada, $881,000,000.

To aid in cutting down this trade balance, the Canadian Manufacturers Sales Corporation are giving three distinct services to Canadian manufacturers and exporters that they have never had before: The first is a display of their goods in this Sales Building. The second, the services of a highly organized Sales Department. The third, the financing of the sales made by them under the guarantee of L. F. Dommerich & Co.

The financing of the sales is arranged by submitting the customer's name to L. F. Dommerich & Company. If he is a satisfactory credit risk, they will send to the client's home bank an undertaking from L. F. Dommerich & Company, that the amount the bank advances him on the value of his invoice, on his producing a bill-of-lading, will, even if the buyer of the goods should fail, be paid into the bank's branch in New York on a given date by L. F. Dommerich & Company.

The Bush Sales Building welcomes this new corporation to their building, as they feel sure that such services as they are giving will soon be so responded to by Canadian manufacturers and exporters, that there will soon be in the Bush Terminal Sales Building an all-year-round permanent exhibit of many of the most important Canadian exports.

Just imagine!
A Theatre seating 400,000

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Toronto Chapter of Graduate Nurses

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(Released every week)

Canada Cement Co.
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Can you tell your sales story to as large an audience in so impressive a manner as through the motion picture theatres of Canada.

Filmcraft offers the highest standard of industrial motion picture productions on the Continent.

To be of the greatest value commercially an industrial film must carry a strong commercial sales appeal and yet have that most essential educational and entertaining value.

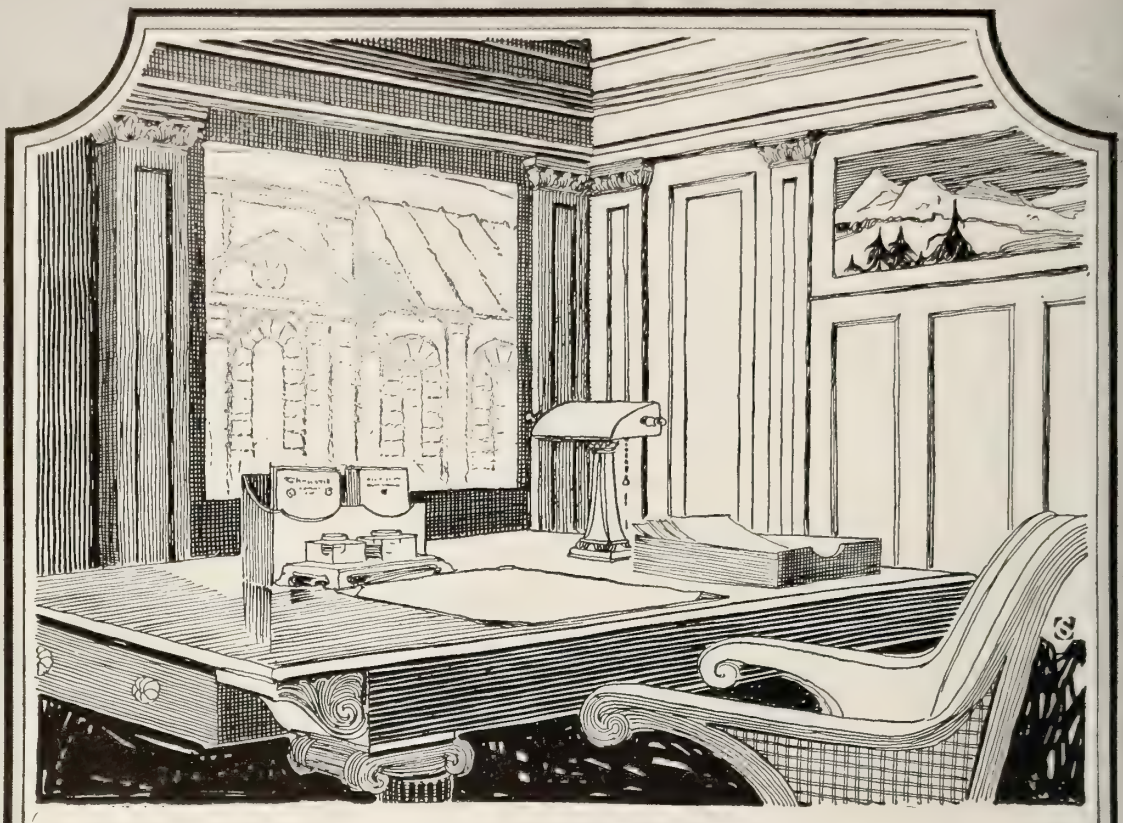
Our master directors are experts in bringing out the sales values of the industrial processes incorporated in each film production, and the success of our past releases and the manner in which they have been received by the motion picture public has proven beyond a doubt, that we have carefully studied and successfully covered every desirable angle of motion picture production.

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Exploiting Saskatchewan Denounced by Provincial Government

By HAMILTON BUTLER.

As a result of the discovery in Saskatchewan of numerous deposits of sodium sulphate, a mild form of "sulphate fever" has become epidemic. Already a number of companies have been formed in the province to exploit the salt beds, and various outside interests have appeared in the market for their output. One party in New York has made inquiries through the provincial bureau of labor and industries, apparently with the object of exporting the mineral in large quantities to other countries, and the Swedish Government is reported to be negotiating with certain provincial owners of sodium sulphate deposits for the purchase of great quantities for the pulp mills of Sweden.

So haphazard have been the methods of negotiation in some instances and so great the expectations based on the deposits in others, that the provincial government has been compelled to step in and warn the owners that they are pursuing a course that has already resulted in an agitation of the market which threatens to ruin an extensive and important industrial development.

Building Up Industries.

"It is highly important and in the interests of the owners of the deposits and of the province generally," says Thomas M. Molloy, commissioner of labor and industries for Saskatchewan, "that the fullest advantage of the present situation be taken to build up local industries rather than ship such valuable material out of the province for the enrichment of other countries. One method of utilizing our sodium deposits is to let large outside corporations acquire them at prices which may or may not represent their true value, since the owners have apparently not taken the steps necessary to the extent or commercial value of the deposits. Another method is for the owners of the deposits to get together and market their product co-operatively in a business-like way, giving guarantees of purity of product and prompt delivery, and shipping it in such shape, as regards package, billing and invoice, as will meet the requirements of the various freight and customs regulations of the countries to which it is exported."

The commissioner appeals to the patriotism of the owners of these deposits not to alienate them or their output to extra-provincial capitalists. "Western Canada annually imports large quantities of manufactured chemicals for use in laundries, breweries, dairies, soft drink plants, soap works, and other industries," says Mr. Molloy, "and all of these can be produced from the sodium sulphate found in Saskatchewan."

Good Equipment Needed.

The owners are also warned of the dangers of attempting to enter the sodium sulphate export business without the proper equipment. "To intelligently recover and market sodium sulphate the owner of the deposit must have accurate knowledge of the purity of the deposit. This cannot be obtained from one sample taken from the deposit but only from samples showing all of the variations resulting from changing conditions as to location in the lake and depth from surface. To attempt to ship sodium sulphate without a resident chemist to closely watch the purity and chemical composition of each shipment is too great a risk, and one which may involve suits for heavy damages for spoiled materials of the manufacturer or expensive litigation from breach of contract, and above all may give to the entire industry in the province such a reputation as to exclude it from the markets of the world."

Watch Their Step.

The purpose of the government's warning to owners is to safeguard their own interests and the interests of the province by inducing the owners to watch their step in exploiting deposits, some of which have analysed over 96 per cent. pure and all of which are regarded as among the most valuable mineral assets yet uncovered in Saskatchewan. The bureau of labor and industries is securing all possible information as to the best methods of mining, purifying and marketing the various grades of sodium sulphate, and this information will be placed at the service of all interested parties.

The action of the government in the case of sodium sulphate is in keeping with the policy enunciated by the Hon. Charles A. Dunning, provincial treasurer and minister in charge of the bureau of labor and industries, for the development of the other natural resources of the province, so far as these come under provincial control.

Against Speculation.

"I am not a believer in speculative development of our resources," said Mr. Dunning recently. "The point of view of the government is that these resources can bring real benefit to the people of the province only through the industrial development of them. What I mean by speculative development is this: Great organizations of capital which at the present time control the output of a given mineral learn of discoveries of other deposits in some part of the world. The result of the development of that area would be the throwing of a great deal more of that particular mineral on the market, with a resultant decline in the value of their own properties. They immediately endeavor to acquire the mineral rights with respect to the new discoveries for the purpose of preventing the development of them. The desire is to control the property, and it is my firm belief by observation of what has happened, that the sales we hear of copper and coal properties to large American institutions are mainly for the purpose of preventing development.

"We do not desire to encourage speculative development because it is the welfare of the people of the province that we have to consider and no one can claim that the people's welfare is served by such speculative development. We desire in connection with the known resources of the province to carefully analyze them—to explore them, as it were, and then size up how this province can best co-operate in getting industries established on the ground in Saskatchewan to exploit these resources industrially."

Ten Discoveries So Far.

Some ten discoveries of sodium sulphate in Saskatchewan have come to the attention of the Bureau of Labor and Industries, and are being investigated for the purpose of establishing the commercial value of the deposits. Among the largest of the deposits reported are those near Senlac, Ceylon, Bruno, Horizon, Viceroy, Fusilier and Unity.

They vary in extent from a few acres to several hundred acres. The deposit at Viceroy covers an area estimated at about two hunderd acres. It is known to be at least three feet deep, with the greater part of it under about six inches of soil. That at Horizon is said to be even more extensive and to average between three and five feet in depth. Claims have already been filed for the mineral rights at Viceroy, as well as for those on Markakee Lake and Spring, a short distance from Bruno, where mineral salts were recently reported to have been located.

There has been practically no commercial development of these deposits to date, although several companies have been incorporated to handle their potential output. The great majority of the discoveries reported were made during the last few months. At the present time an effort is being made by the Bureau of Labor and Industries at Regina to sift the chaff from the corn, and discover not only the value of this mineral asset to the province, but the best manner of marketing it. Anyone interested in securing accurate information in regard to the possibilities of the deposits would be well advised to seek it directly from the Bureau.

The Better Furnished Homes Campaign

(*Continued on page 78.*)

ideas like moving picture propaganda, real art work and advertising specialists call for a much larger expenditure than he can afford, but by united action all these advantages can be secured at a reasonable cost.

The retailer also is helped by such a campaign. One service the Home Furnishings Bureau plans to render is expert advice on the problems of advertising, with suggestions for copy. The retail merchant is thus enabled to make his local advertisement more attractive without any additional outlay of money.

Finally the consumer gains. Augmented demand means greater production and greater production in the long run brings lower prices. But, above all, there is the satisfaction of possessing beautiful furniture. That is real and permanent though it cannot be measured in terms of money. All that the Home Furnishings Bureau can do in pursuit of its ideal deserves recognition as much from the general public as from the manufacturers who established it. Better furnished homes mean greater happiness to the consumer and incidentally to the manufacturer.

Double Plant's Capacity

A full story has been added to the present five storey factory of the Paulin-Chambers Company, Limited, at Winnipeg, Manitoba, which covers an area 100 x 120 feet. This new addition enhances the production of their candy department to a marked extent, and with the installation of a new Chocolate Department, embracing one entire flat, they are now in the position of being able to cater to the needs of Western Canada.

They have acquired a new five-storey building across the avenue from their present plant which they are equipping with two biscuit ovens and machinery of the most modern type. This new addition will double their biscuit capacity and enable them to take care of the trade of Western Canada.

The company have enjoyed a steady and sound growth for the past 37 years, being the oldest plant west of the Great Lakes.

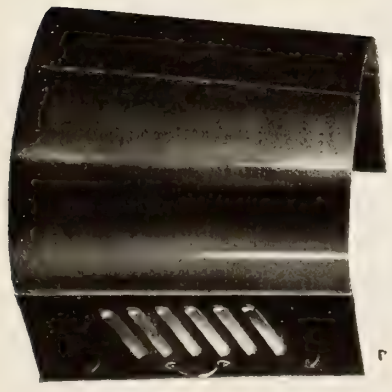
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Returned Soldier, 26, married, wants position as clerk, timekeeper or warehouseman; Public school education; good references. Address replies to H. O. Taylor, care Can. Mfg. Ass'n.

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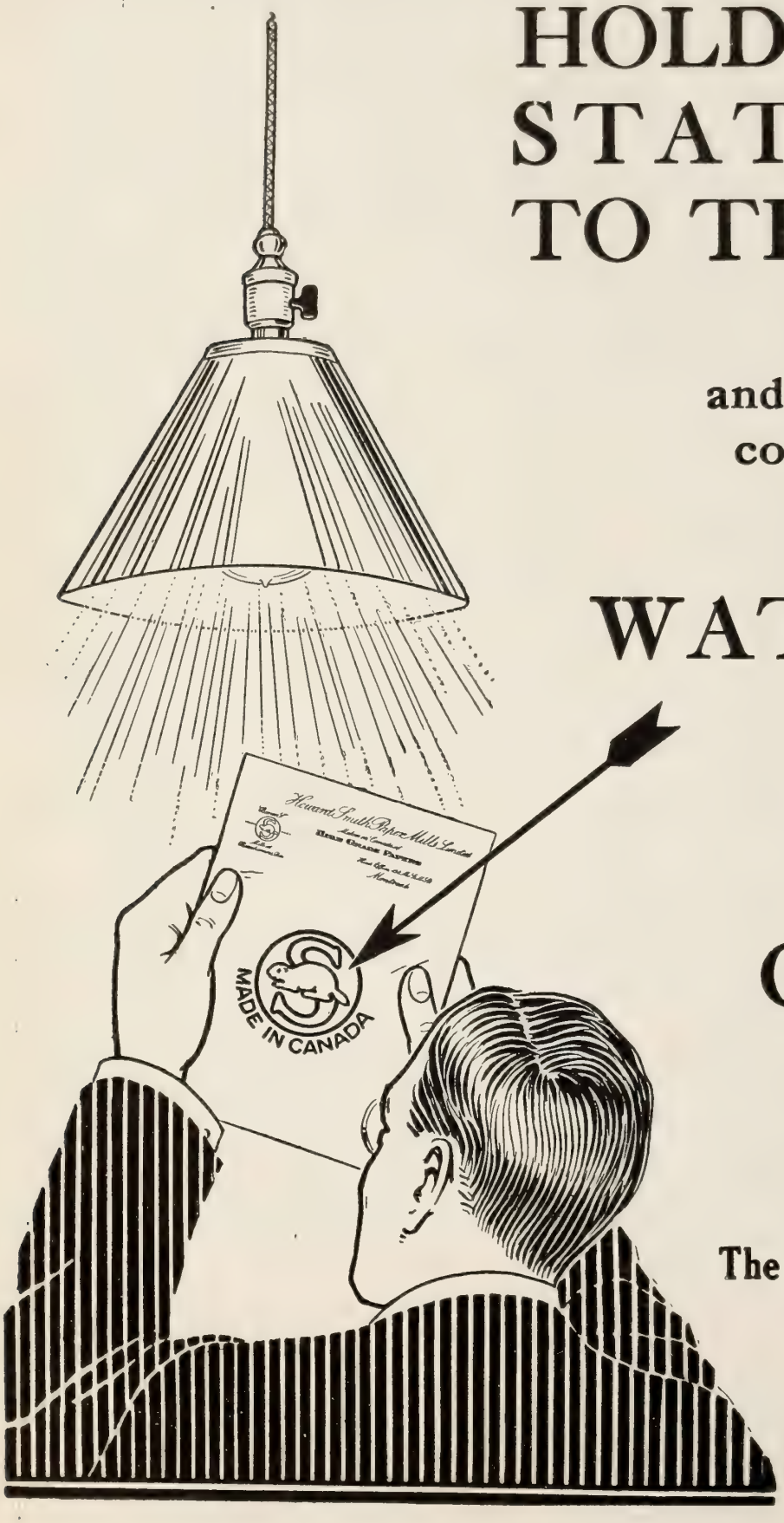
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OFFICE AND FINANCE

Filing Under the Subject Heading

How the Filing Department in the Business Office is Able to Co-relate All Letters Bearing on the Same Subject

By ALAN M. IRWIN

WHEN your correspondence is filed alphabetically it is exceedingly hard to group together all the data on record with regard to a stated subject. A considerable amount of cross-indexing or memory-searching is required in order to recall the names of all the persons or firms with whom correspondence on a given subject has been exchanged. Therefore, to overcome this difficulty it is becoming generally a custom on the part of Trade Associations, Boards of Trade, Chambers of Commerce, etc., whose correspondence deals generally with subjects rather than persons, to change the alphabetical system to either the subject filed alphabetically or a combination of subject headings and numeric filing.

Subject EXPORT TRADE - ARGENTINE File No 12-3-20

NAME	Our Sig	DATE IN	DATE OUT	NAME	Our Sig.	DATE IN	DATE OUT
Robertson	W	5-6-20	6-6-20				
Hunt	S	8-6	10-6				

The Dossier

Showing rulings as explained in the text

Under either of these systems this year's file contains the first and every succeeding letter written and received on the subject by every correspondent who is in touch with business under discussion and, if called for by the General Manager or President periodically, will show him just how completely or otherwise the ground has been covered.

The Office Clearing House

All this co-related correspondence is gathered together and centralized under the subject head in the Central Filing Department, or, better, the Office Clearing House.

The phrase, Office Clearing House, perhaps more aptly describes the Filing Department than any other designation, for it is in this department that the threads of the firm's affairs are gathered together and linked up. A letter is signed, placed in the correspondent's out basket, collected by the files messenger and transported to the Central Filing Room, where it is stamped and mailed and where the carbon copy is detached and placed in its proper file at once. It does not matter if the letter comes from the General Manager, the Accountant or from any other officer of the company or association, it will find its correct place and be available for anyone's perusal as soon as it is received.

How to Use the Subject File

While the writer mentioned particularly boards of trade and so forth, it is not for the reason that this system is beneficial in its effect only to that class of organization. There are many firms whose general business almost requires subject heading, if not as a particular filing system, at least as an adjunct to the system at present in existence. On account of the varied nature of these businesses it would be somewhat impracticable to give instances in this article which will confine itself to the explanation of the workings of the subject system rather than a statement of what classes of business could most advantageously employ it.

The subject file, like many other almost invaluable office devices, is easy of operation, requiring no change of equipment if there is already installed a system of vertical cabinets. Basically the system from the mechanical point of view is this:

Correspondence is indexed under subject headings with the cards arranged in alphabetical order and filed in the cabinet in numerical progression. One advantage is that as new subjects open up, no rearrangement of drawers is necessary, as the addition automatically follows the last folder in the drawer. Expansion is easily allowed for and the addition of the last two figures of the year to the classification allows transfers to be made allowing the current folders to be used continuously.

For the correspondents' information and guidance a list bearing subjects and their classifications is prepared and placed under the glass top of each desk, thus enabling them to give the classification as they dictate, and saving the time of the stenographer who heads the letter with this number instead of a written subject heading. This list is added to as the chief filing clerk allots classifica-

FILE NO

BROWN, JONES CO. LTD.

SUBJECT	CROSS REFERENCES

DATE	SENT FROM FYLE CLERK TO	P.A. ENTER DATE	B.F. ENTER DATE	INITIALS	REFERRED TO	REMARKS
						(If purpose for which referred cannot be expressed on one line, add memo. to file and enter here "With Memo.")

Index Card

This card is ruled to show a condensed summary of the movements of the file

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Established over 100 Years

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Total Assets - $571,150,138

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AGENTS IN UNITED STATES

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CHICAGO—First National Bank BUFFALO—Bank of Buffalo
DETROIT—Old Detroit National Bank
SAN FRANCISCO—Wells Fargo Nevada National Bank
and in all other principal centres

HEAD OFFICE . . TORONTO

tions to new subjects. It is an important part of the duty of the Filing Head to see that these lists are kept up-to-date.

An Example

A file is opened on a subject, say:

EXPORT TRADE—This is allotted the main classification of 12.

The subject expands and subdivisions become necessary, as follows:

EXPORT TRADE with South Africa—12-1.

EXPORT TRADE with United Kingdom—12-2.

EXPORT TRADE with Argentine—12-3.

The next procedure is to connect these codes with the writers and that is provided for as follows: In front of the classification on the letter head the correspondent's initials are imposed, thus:

J. B. W. 12-3

and then is added the year, thus designating the letter, as:

J. B. W. 12-3-20.

meaning that this letter is on the subject of Export Trade with the Argentine, written by J. B. Williams, and that it belongs to the current file, all this information being conveyed by the coding at the head of the letter. For letters between branches and head office a line may be ruled underneath the file number, and instead of dating the letter in the more formal manner, the date is entered under the classification, in this manner:

J. B. W. 12-3-20.

1-7

so that the branch house and the writer may eliminate the formal "In reply to your letter of," etc., and go right ahead with the body of the subject without waste of time.

If one subdivision divides into a general and a particular phase, the correspondence may still be kept together by the addition of a file indexed under the same classification, but with the addition of a letter immediately following the subdivision code, for instance:

Export Trade with the Argentine (Agr. Impts.)—12—3A—20.

The different classifications are readily learned by the filing clerks because of their constant association with them, and have the added advantage of being more easily filed, more easily said and, most important, MORE EASILY FOUND.

The Dossier

While not absolutely an essential, the dossier or heavy foolscap folder is a very helpful accessory to the subject system of filing.

No records officer will permit pins or fasteners to remain on letters when they reach his department, and it is a pretty general custom to fasten the papers together with a large brad or brass split-pin, which pierces the top left-hand corner of the file. This, of course, keeps correspondence well fastened and together, but cannot prevent the turning up of corners, tearing of edges, etc.

For some years now the dossier has been used to a certain extent and its wider use would prove a boon to many filing clerks whose files are mistreated in their travels through the office. The dossier is made slightly larger than letter size and in appearance is practically the same as the folder

in the vertical cabinet drawer. It bears the name of the subject on the front and is ruled as per the accompanying illustration into seven columns in which directions are pencilled.

A Handy Record

The first two columns are self-explanatory, the symbols P. A. and B. F. in the third and fourth columns are respectively "Put Away" and "Bring Forward"; column five is the authority for returning the file to the filing room or the guide showing to whom the file is to be brought forward. If the file is referred to another department or correspondent his initials are entered by the original recipient in column six and instructions are given briefly in column seven. This column also gives the final disposition of the matter for the dates covered on the same line.

The code number or classification of the subject is marked in blue pencil on the top left-hand corner of the dossier, so that when the file is lying on the desk, the number is parallel to the fold and vertical. When the dossier is placed in its folder in the drawer the open end is placed downward (to the exclusion of dust) and the fold to the top, with the result that the classification appears on the top right-hand corner of the inverted dossier, i.e., the most easily visible position. Here it can be seen at a glance, and assuming the drawers to be properly equipped with stiff division boards, can be picked out just as quickly as the drawer is opened.

When a dossier is removed, it is of course replaced by a charge-out card bearing the initials or other designation of the person to whom it has been sent, and the fact that the heavy manila folder bearing the classification remains in the drawer, simplifies the operation of charging out the file, the only entries necessary being the initials of the person to whom the file is sent and the date.

Indexing is, of course, an easy matter, the only rule being that the index card must be made out coincident with the creation of a new file. Filed in the tray alphabetically, each card contains the classification of its subject and reference to it gives the guide to the cabinet in which the desired correspondence is to be found.

Procedure

1. Incoming mail.

As the mail is opened it is passed to the index clerk, who will mark the file number on the letter and place in the desk basket containing the series of numbers in which it is to be found. The clerk who attends to the cabinet containing this series of numbers will take it, draw the file, attach the letter and charge the file out, replacing the dossier in the folder with a charge-out card and place the dossier in the out basket, whence it will be lifted by the messenger and delivered to its destination.

2. Requisitions.

The routine for requisitions is the same as the foregoing.

3. Incoming files.

It is the duty of the index clerk to scan the front of all incoming dossiers, to enter them on the date index cards if they are to be brought forward, and to note the disposition of a file that is transferred. When a transfer is made it is the clerk's duty to notify the cabinet clerk concerned in order that the necessary alterations to the charge-out card may be made.

It has been found that in connection with the procedure outlined that it is possible to provide a perfect check on the activities of the various departments of the organization. It would be the duty of the chief clerk of the Filing Department to briefly scan each letter before it is passed out for the atten-

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THE BRITISH INDUSTRIES FAIR

LONDON—BIRMINGHAM—GLASGOW
FEBRUARY 21st TO MARCH 4th, 1921

The Seventh British Industries Fair, organized by the British Government, will be the biggest and best exhibition of British manufactured products ever grouped together for the benefit of foreign buyers.

The Fair will be divided into three sections—with an entirely different list of exhibits in each section—no industry being permitted to exhibit in more than one section.

The London Section will be held in the White City, Shepherd's Bush, which is famous for its many successful fairs. Here will be shown such products as:—Leather and Fancy Goods; Watches and Clocks; Furniture; Musical, Optical, and Scientific Instruments; Brush, Glass, China, Earthen, and Basket Ware, etc., etc.

In the Birmingham Section—a distance of only 2½ hours by rail from London—there will be exhibits of:—General Hardware; Tools; Alloys and All-Metal Products; Motor Cycles; Accessories for Motor Vehicles; Aeroplanes, etc., etc.

The Glasgow Section opens on February 28th in Glasgow—a ten hours' journey from London. The exhibits in this section will include:—Textiles of all kinds; Clothing; Hosiery; Hats; Caps; Shoes; Gloves; Carpets; Foodstuffs; Beverages; Chemicals and Chemical Products, etc., etc.

Every possible assistance will be given to visiting buyers. The Department of Overseas Trade of the British Government has offices right on the grounds, where all information *re* supply, tariffs, shipping, exchange, etc., is readily obtained. Writing rooms, special Post and Telegraph Offices, and restaurants, are installed for the buyers' convenience.

A visit to the British Industries Fair will enable Canadian buyers to make their purchases at a great saving of time and travelling expense. Invitations and complete information, catalogues, etc., will be furnished on request by the British Trade Commissioners in Canada, or by the Fair's Secretary, 35 Old Queen Street, Westminster, London.

You cannot afford to miss this Fair. If you cannot attend and have no representatives in England, the British Trade Commissioners will recommend responsible brokers.

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L. B. Beale
H. M. Trade Commissioner
610 Electric Railway Chambers
WINNIPEG, MAN.

tion of the department to which it is addressed. This chief clerk, who should be skilled in the art of precise writing, will dictate a brief memo. to be incorporated in the list, giving the name of the firm writing, department to which it is addressed and a brief synopsis of the letter. This information will be compiled daily by his stenographer in a report which may be placed in a loose leaf book. At the close of each day the chief stenographer passes to the chief clerk of the Filing Department third copies of all letters written by all departments during the day. In the morning these third copies are checked over against the list and as with the incoming a brief synopsis of the reply is placed alongside the original report. In the case of letters which have not been replied to in two or three days whichever limit may be fixed by the Manager, a short note will be sent to the departments which are behind in their correspondence. In this way, not only are the firm's correspondents kept up-to-date, but a very handy and concise report of the firm's activities is outlined by this report.

Pass a Transfer Slip

Under no circumstances should a file be passed from one correspondent to another unless a transfer slip is passed to the filing department. In a small office all files for transfer may be collected by the files messenger and routed to their new destinations by the filing department.

A system of this nature may be adapted to many types of organization and will, if efficiently handled, be a means of eliminating unnecessary duplication and thereby reducing expense by the adoption of the principle of—ONE SUBJECT, ONE FILE.

Stock Reorganization

Shareholders of Price Bros. & Company, Limited, Asked to Ratify Directors' Recommendation

Definite announcement was made on October 11th respecting the capital stock reorganization of Price Bros. & Company, Limited. A new company with the same name as the old firm has been created to take over the assets and business of the present company as a going concern. A circular, addresed to shareholders of the present company asks them to pass upon the recommendation of the directors at a meeting to be held in Quebec on Monday, October 25th. The transfer of shares, probably on the basis of five for one, is to become effective on November 1st if the shareholders approve the proposal.

The circular, which is signed by the President, Sir William Price, after giving notice of the special meeting, states that shareholders are asked:—

(1) To take action in approval or disapproval of the proposed sale, conveyance, transfer and delivery to Price Bros. & Co., Limited, a corporation created by letters patent of the Province of Quebec issued in 1920, of all the undertakings and assets, movable and immovable, corporeal and incorporeal, for the following consideration:—

(a) 426,710 shares of $100 each, fully paid up, of the company's capital stock.

(b) The assumption by the company purchaser of the outstanding bonded debt and other liabilities of the company outstanding as on November 1, 1920.

(c) The undertaking by the said company purchaser to carry out all contracts, agreements and obligations of the company existing on the said date.

(2) To consider and approve or disapprove a resolution of the Board of Directors relating thereto.

(3) To consider and determine such other and further

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The Bradstreet Company gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchants, by the merchants, for the merchants. In procuring, verifying, and promulgating information, no effort is spared, and no reasonable expense considered too great, that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world.

Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary, and business corporations. Specific terms may be obtained by addressing the Company at any of its offices. Correspondence invited.

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Montreal, Que.	Toronto, Ont.	Vancouver, B.C.	
St. John, N.B.	Winnipeg, Man.	Calgary, Alta.	St. John's, Nfld.

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Catalogue B.

The Goderich Organ Co. Limited
GODERICH, CANADA

Closet Seats,
Flush Tanks,
Medicine Cabinets,
Everything for the Bathroom.
Write for Catalogue C and Price List.

matters in any way incidental to or connected with the foregoing as may be brought before the said meeting.

In a further communication, Sir William Price states:—"In view of the conditions which prevail I have no hesitation in recommending that the shareholders avail themselves of this offer of purchase."

The capital stock of Price Bros. presently outstanding is comprised of 85,342 shares of a par value of $8,534,200 with 5 per cent. bonds, as at the end of February last, totalling $5,172,098.

Profits Have Declined

Annual Statement of Ogilvie Flour Mills Company, Limited, Shows Decrease in Revenue

The annual statement of the Ogilvie Flour Mills Company, Limited, submitted to the shareholders at the meeting held in Montreal on October 14th, shows a decline in net revenue for the year ended August 31st. During the period profits from all sources, including income from investments and after deducting bond interest, amounted to $959,065, a decline of $673,451, or some 45 per cent. from the level shown in the previous statement, and a decline of $996,349 from that of 1918.

For the first time in a number of years profits from milling operations and those from investments are shown in the aggregate rather than in the segregation, so that conclusions in respect to the industrial conditions and their outcome are difficult to arrive at. About a year ago the company announced a bonus distribution among holders of its common stock of 15 per cent., but this was reduced to 10 per cent. in the recent declaration, thus indicating that the revenue from investments, out of which the bonuses were paid, had undergone some impairment in the twelve months.

Discussing the results of the year's operations in a brief address to the shareholders, W. A. Black, vice-president and managing director of the company, stated that the milling business during the period covered by the statement had been far from satisfactory. The control of wheat and its products had been vested in the Wheat Board, and during a considerable period of the year the prices fixed by that body had resulted in a positive loss to the mills. Fortunately, he stated, the interests of the Ogilvie Company were not confined to milling alone, and satisfactory profits in other branches of the enterprise's activities had been made.

Mr. Black stated that while wheat control had ceased in Canada, it was still in force in the Old Country, but he expressed the hope that, with the advent of spring, the restrictions would cease there also, and permit of the resumption of normal conditions between the millers and their overseas customers.

Russell Earnings Lower

Profits of Russell Motor Car Company, Limited, Are Less But Outlook Is Hopeful

The financial report of the Russell Motor Car Company, Limited, for the year ended July 31st, shows earnings of 28.2 per cent. on preferred stock, and 31.8 per cent. on common. For the previous year earnings on preferred stock were 38 per cent., and earnings on common were 46.06 per cent. The company have made final adjustments with respect to munition contracts and are now turning to peace operations. In spite of the reduction in profits this year a hopeful outlook for the future is expressed by the president, Lloyd Harris.

Regarding Willys-Overland, Limited, an important subsidiary of the Russell Company, the following information is given: "This company has completed the conversion of its

What Is Ahead of YOUR Business?

Many manufacturers now face sharper competition and lower prices. What new conditions confront you?

You may not be able to show a satisfactory profit this coming year unless you take advantage of many small savings.

Have you perfected your production and cost methods to a point where they reveal such opportunities? If not we can help you.

Permit us to send you a statement of our methods of work, experience, and clientele.

GRIFFENHAGEN & ASSOCIATES, Limited

Industrial Engineers, Accountants and Employment Advisers

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plant from airplane engine work to automobile work, and during the first six months of the calendar year enjoyed an active demand for its product. Since July first it, in common with other motor companies, has experienced a contraction of sales, and its operations are being carried on at the present time on a reduced basis. It is expected, however, that there will be a renewed demand after the first of the year, when returns from the crops have had time to get into general circulation."

Other subsidiaries are the Canada Cycle & Motor Company, Limited, and the Russell Gear & Machine Company. The former paid a dividend of 7 per cent. on the capital stock on September 1st. The latter company, who were formerly known as the Machine & Stamping Company, Limited, have taken over the machine equipment of the Russell Motor Car Company, Limited, with a view to carrying on a general machine business. The capital stock was increased to $1,000,000, all of which except qualifying shares is held by the Russell Motor Car Company.

Bank of Montreal

Bonus of Two Per Cent. Declared on Business for the Current Year

At the last meeting of the Bank of Montreal board of directors, a bonus of 2 per cent. for this year only was declared in addition to the regular quarterly dividend of 3 per cent. In connection with this declaration, the bank desired it to be understood that there had been no increase in its interest rates to borrowers in Canada and that the additional distribution to shareholders was the result of a successful year's business and the enhanced value of money outside of Canada, where the bank's reserves are to an extent carried.

This bonus to the shareholders is a further evidence of the bank's progress during the year and an indication that Canada is steadily advancing through the re-construction period to sound normal conditions.

Cockshutt Profits Increase

Annual Report of Cockshutt Plow Company, Limited, Shows Substantial Increase in Net Profits

The annual report of the Cockshutt Plow Company, Limited, shows an increase in net profits from $571,586 to $660,921. Dividends amounting to 7½ per cent. on preferred stock were paid, as against 4 per cent. in the previous year, and the balance at credit of profit and loss was $576,434 as against $399,387. Loans were reduced from $594,767 to $124,924. Earnings on preferred were at the rate of 10.23 per cent., as compared with 8.84 per cent. in the previous year.

According to President H. Cockshutt there has been a large and well-sustained demand for the company's product during the year, and an even greater volume of business could have been done if the company had been in a position to accept all the orders offered to it.

"This was prevented," says Mr. Cockshutt, "not only by the difficulty in obtaining labor and material, particularly the latter, but by the insufficiency of the company's plant to meet a greater demand upon its capacity. In order to deal with the situation the directors decided that considerable additions should be made to the plant at Brantford, and the buildings are now well advanced. The continued growth of our business, combined with the very high prices now prevailing for the principal raw materials used by the company, will require a greater amount of money than has been needed in the past for the purpose of carrying the necessary raw materials and goods manufactured and in process. The same situation exists in the company's subsidiary and allied companies.

The subsidiary companies, Adams Waggon Company and Brantford Carriage Company, have had a very successful year, working to capacity, and showing substantial betterment. The Adams Waggon Company has not been able to cope with the business offered it, and, consequently, has been forced to consider increased facilities. This company was offered the Petrolea Waggon Company's plant at Petrolea, fully equipped with modern machinery, and it has secured it under lease, with an option to buy. This plant is now operating, and as soon as a full supply of material can be secured will be worked to its capacity.

Carriage Factories, Limited

Annual Statement of Orillia Firm Shows Deficit and Reduction of Liabilities

Carriage Factories, Limited, of Orillia, Ontario, have issued their annual statement for the year ended July 21st, 1920. A deficit amounting to $36,845 is shown for the twelve months, as compared with one of $27,531 for the previous year.

Gross profits for the year were $302,635, to which is added the sum of $32,860 under the item, sundry revenue, giving a total of $335,496. Against this is charged $157.488 under the heading "administrative and selling expense," which brings the earnings down to $178,007. Further charges of $214,852 are set against this sum, which results in the net loss carried to current surplus of $36,845. The amount of $214,852 charged against the earnings, after the deduction of operating expenses, is made up of the following items: Bond interest, $28,692; bank interest and charges, $51,316; bad debts reserve, $17,162, and reserve for inventory, $117,681.

Total assets amount to $3,898,364, of which $904,969 comes under the head of inventories, which is somewhat under the same item in last year's report, which stood at $965,567 (less reserve in each case). Liability to the Town of Orillia is $25,000, which shows a reduction in this regard from last year, when the liability was $27,500. Bank loans and overdraft are $609,284, against $715,435 a year ago, which displays a decline of over $100,000 in borrowing.

Announcement was made on October 14th that Sir Lomer Gouin, formerly Premier of Quebec, had been elected a director of the Cockshutt Plow Company, Limited, Brantford, Ontario, at the request of British and French shareholders in the company. European investors in the company are already especially represented on the board by Sir Augustus Hanton and F. Perry.

T. Williamson was re-elected president of the St. Lawrence Flour Mills Company, Limited, at the annual meeting of the company's shareholders. The remaining directors, A. E. Labelle, George D. Grier, C. J. Fleet, and Joseph Quintal were also re-elected.

At the last meeting of the Canada Life Assurance Company, Sir Thomas White was elected a director to fill the vacancy caused by the death of Alexander Bruce, K.C.

At a recent meeting in Toronto, T. W. McGarry, K.C., was elected president of the Whalen Pulp and Paper Mills, Limited, succeeding Sir George Bury. The following were also elected to the executive:—I. W. Killam, Montreal; M. J. Haney and W. G. Ross, Toronto, and M. R. Higgins, San Francisco.

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Safety Razor

Gillette Safety Razors are correcting all over the World the mistaken idea that Canada's activities are confined entirely to agriculture.

Admittedly, the Gillette Safety Razor is the acme of perfection in modern razor manufacturing, and on every razor and blade that leaves our factory goes the message "Made in Canada—Known the World Over."

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Canada's Industrial Expansion

A Record of Progress

Making Hydraulic Machinery

The Dominion Engineering and Machinery Co., Ltd., are Canadian Manufacturers of I. P. Morris Turbines

In 1918 Dominion Bridge Co., Limited, whose machining capacity had grown largely during the war, started the manufacture of paper machines, which had not previously been made in Canada. The machines were at first built in the Dominion Bridge Company's machine shop at Lachine, but the department grew so rapidly that towards the end of 1919 it was decided to buy the St. Lawrence Bridge Company's shop at Lachine, and to handle the department as a separate organization. The Dominion Engineering & Machinery Company, Limited, were, therefore, organized for this purpose, being entirely owned and operated by the Dominion Bridge Company, Limited.

Soon after their organization the new company were approached by several individuals who had been looking for a shop in which to manufacture large hydraulic turbines. These individuals were interested in several of the large power companies of Eastern Canada and were working hand in hand with the Wm. Cramp & Sons Ship & Engine Building Company, of Philadelphia, manufacturers of the I. P. Morris Turbines and Hydraulic Machinery. The Dominion Engineering & Machinery Company shop was eminently suitable for their purpose and a decision was made to combine forces and to reorganize the new company on a larger scale, to build both the paper and the hydraulic machinery.

The Dominion Engineering Works, Limited, were organized and commenced business in May, 1920, with a capital of eight million dollars and the following directors: President, G. H. Duggan; vice-presidents, A. J. Brown, Julian C. Smith; directors, W. F. Angus, Geo. Chahoon, Jr., Sir Herbert Holt, Phelps Johnson, J. M. McIntyre, Howard Murray, Carl Riordon, H. B. Taylor, F. L. Wanklyn.

The Dominion Engineering Works, Limited, shop is situated at Rockfield, within the City of Lachine, Quebec. It is served by both the Grand Trunk and Canadian Pacific Railways, and the property is sufficiently large to provide for future extensions.

The company, though equipped for almost any kind of heavy foundry and machine work, intends to specialize in the manufacture of paper machines and accessories and water turbines. A modern grey iron foundry has been built, equipped for the largest work. This foundry is 145 ft. x 350 ft. and is served by 70-ton and 15-ton cranes to which a 35-ton crane is being added. There are three cupolas, 37 ins., 54 ins. and 84 ins. Special pits for paper machine dryers and a large pit 30 ft. x 120 ft. for turbine work. The foundry is equipped with sand-blast apparatus, jolt machines, rammers, etc.

The machine shop, which is the old main shop of the St. Lawrence Bridge Company, is 660 ft. x 160 ft. with a side bay 60 ft. x 440 ft. The east third of the shop is higher than the remainder and is served with one 70-ton and two 35-ton cranes. Here most of the hydraulic work and the heavier part of paper machine work will be done, and in this part will be situated such large machine tools as the 18-ft. and 35-ft. vertical boring mills, the 12 ft. x 20 ft. horizontal boring mill, and the special dryer-lathes and grinders. The remainder of the shop is served by 10-ton and 40-ton cross-cranes and has a general machine tool equipment, with a specially large number of long roll turning lathes for paper machine work, roll-grinders, etc. There is a large space for the erection of machinery. All tools are operated by electric power purchased from the Montreal Light, Heat & Power Company.

The pattern shop is in a separate building formerly used by the St. Lawrence Bridge Company as a template shop. The Company have not as yet built an office building but their offices are at present housed in the Dominion Bridge Company's office building at Lachine, about half a mile distant from the works.

The Company have a large amount of work on hand. They have nearly completed two large newspaper machines for the Laurentide Paper Company. These are high-speed machines, 166 inches wide, and are of the most modern construction. They are also completing a large tissue paper machine for the Interlake Tissue Mills Company and have several other paper machine contracts on hand. In the Hydraulic Department they have contracts for two 20,000 h.p. turbines for the Laurentide Power Company, two 10,800 h.p. and one 1,500 h.p. turbines for the Cedars Plant of the Montreal Light, Heat & Power Company, and four 2,700 h.p. turbines for the Spruce Falls Company, Limited. All of these turbines are of the I. P. Morris design.

New Paper Company

Three Rivers Pulp & Paper Company, Limited, Plan to Operate by November, 1921

A new entry in the pulp and paper field is the Three Rivers Pulp & Paper Company, Limited, of whose stock issue a prior offering is being made to shareholders in the Hollinger Consolidated Gold Mines, Limited. Upwards of two million dollars of the preferred stock issue has been subscribed by the directors of the Three Rivers Company, whose names are given below. The remainder is offered first to Hollinger shareholders and any portion not taken up by them will be offered for public subscription.

The company state in their prospectus that they intend to proceed at once with the erection of a thoroughly modern ground-wood pulp mill, with equipment of the latest design and an initial capacity of 100 tons per diem (30,000 tons per annum). The mill is to be situated at Three Rivers, on a suitable site already secured, with excellent rail and water shipping facilities, and of an area ample for further extension of the plant. The site secured has a frontage of 1,500 feet on the St. Lawrence River, where ocean steamers can load at the company's own dock. Rail shipments will be

handled by siding connection with the C.P.R. It is planned to have the mill in operation in November, 1921. There is an ample supply of standing timber on the company's limits.

The authorized capital of the company is $4,000,000 in 8 per cent. preferred shares, with 80,000 common shares of no par value, all of which is to be issued. The head office is in the Drummond Building, Montreal. On the board of directors are: President, N. A. Timmins, president of the Hollinger Mines; vice-president, Denaston Breakey, president John Breakey, Limited; L. H. Timmins, Colin Breakey, R. J. Whyte, J. W. Smith, W. L. McDougald, W. P. Kearney, and D. A. Dunlap.

Nearing Completion

Owen Sound Cereal Mills, Limited, Expect to Commence Operations by November 15th.

The plant of the Owen Sound Cereal Mills, Limited, at Owen Sound, Ontario, is rapidly nearing completion, and it is expected that everything will be ready for the commencement of operations by November 15th. The company have purchased a four-storey stone building 200 x 100 feet, and will employ about twenty men. The products are oatmeal, split peas, pot and pearl barley, millfeeds, flaked wheat and cracked wheat. The mill has a capacity of some 250 barrels per day. According to the Owen Sound *Sun and Times* a great deal of the split pea product will be exported as there is a great demand for it in Central and South America.

The company took over the business of Duncan Haston & Company, and Matthew R. Duncan is president of the new concern. The other directors are:—Morley D. Lemon (vice-president; H. I. Price (secretary-treasurer), Charles Thompson, William Haston, R. Patterson, E. W. McQuay. The authorized capital is $100,000.

New Lumber Mill

La Compagnie Jos. Lefrancois, Ltee., Will Operate New Mill Early in November

A new lumber mill is being erected at Limoilou, Quebec, by La Cie Jos. Lefrancois, Ltée., and will be in operation early this month. It is a structure 125 x 110 feet, built in concrete blocks and with concrete floors. The equipment will consist of one carriage with circular saw, one band resaw, one rip saw, two high speed planers and matchers, two surface planers and two stickers or moulding machines. The estimated output is 50,000 feet of dressed lumber and mouldings a day. From 30 to 35 men will be employed.

The company are a limited one capitalized at $98,000. Jos. Lefrancois, of Quebec, is president; J. E. Vallée, of Beaufort, vice-president, and J. M. Dessureault, of Quebec, secretary-treasurer. Other directors are A. Dessureault, of Quebec, and J. A. Rousseau, of Ste. Anne de la Perade.

Chocolate Plant Extends

Rockland Cocoa & Chocolate Company, Limited, Connect Their Two Existing Buildings

The Rockland Cocoa & Chocolate Company, Limited, are connecting the two existing buildings of their plant at 18 and 20 Duncan Street, Toronto, by an addition which will give an added floor space of 4,332 feet. This will be used chiefly for manufacturing purposes and storerooms, and will increase the present capacity and output of the plant by about ten per cent. The company expects that the alterations will be completed by the 20th of November.

Cafeteria Equipment

The economical operation of a Factory Cafeteria depends largely on the equipment. We have installed Cafeteria Counters with heating equipment, glass shelves, refrigerators and supplied chairs and tables in some of the largest industrial plants in Canada.



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We will design and submit plans and estimates for any size Cafeteria for your Factory upon your request.

JOHN HILLOCK COMPANY LIMITED

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So They Called the Expert In

Fred Brock of Baxter and Company was a good Office Manager. That was an acknowledged fact, both among his business associates and the boys at the club. People discussed his organizing ability and the capable staff with which he had surrounded himself.

ONE thing troubled Fred, though: his filing system and certain details of office routine. In the rush of two years of unprecedented business he'd no time to re-organize his system. As a result it had become unwieldy; papers were becoming increasingly difficult to find; complaint reports were coming in with greater frequency from the "Chief" and other department executives, so Miss Thompson, the filing clerk reported.

That was just a year ago—before Fred Brock called to his aid the System Service Expert of "Office Specialty". His business day is much pleasanter for him now—since the "Office Specialty" System Expert analyzed his existing systems and submitted a plan that would not only remedy the immediate trouble, but make ample provision for natural expansion for some time to come.

This is the type of expert service that "Office Specialty" is rendering to its thousands of clients to-day— a concrete service backed by the resources of a centralized System Department whose cumulative experience in solving filing and record-keeping problems in many different kinds of business is offered to you in your individual problem without fee or charge, or without reservations of any kind.

SYSTEM SERVICE

"Office Specialty" System Service Experts are men who merit the name *expert*. They are trained, practical men. They will gladly make your office routine, record-keeping, or filing problems their own. Their value to themselves, and to us, depends upon the value of their service to you.

Put your office routine or record-keeping problem up to our nearest Service Store.

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OFFICE SPECIALTY
FILING SYSTEMS

Now In Operation

Anglo-Canadian Wire Rope Company, Limited, Have Completed Plant at Lachine, Quebec

The Anglo-Canadian Wire Rope Company, Limited, who were incorporated in June of last year, have completed their plant at Rockfield Station, Lachine, Quebec, and have already manufactured several thousand feet of steel wire rope. The newly-erected factory is especially designed for this purpose and is equipped with machinery of the latest type, evolved after years of experience of the best ropemakers in Great Britain. It has been imported from the best makers of this class of machinery in England. Many delays were experienced while obtaining it, owing to unsettled conditions, but at the end of last August the plant was put into running order.

The Company are capitalized at $200,000 and have their head office at 374 Beaver Hall Square, Montreal. The following constitute the board of directors:—D. W. Clark (president), Canadian B. K. Morton Company, Limited, T. S. Morrisey (vice-president), R. M. Davy, G. H. Atkinson, G. D. L. Hunter. The Canadian B. K. Morton Company are appointed sales agents for the whole of Canada.

Separate Company Formed

Canada Fire Brick Company, Limited, Handle Fire Brick Business for Two Other Companies

The Canada Fire Brick Company, Limited, have been organized to take over the affiliated fire brick interests of the Montreal Fire Brick Works Company, Limited, and the Canada Supply Company, Limited. These companies have been working together for the past year, but it was deemed advisable to incorporate a separate organization for handling the fire brick business.

The head office will be located at 418 St. James Street, Montreal, where all orders and correspondence should be addressed. The plant at 399 St. Ambroise Street has been rebuilt and enlarged. Modern equipment and kilns have been installed with facilities for stocking standard shapes, and every effort will be made to give customers reliable and satisfactory service.

To Build New Plant

Crouse-Hinds Company of Canada, Limited, Buy Five Acre Site in Toronto

Five acres of land at the corner of Hanson St. and Coxwell Ave., Toronto, have been purchased by Crouse-Hinds Company of Canada, Limited, manufacturers of electrical appliances, and plans and specifications for new buildings are now being prepared. These will be three in number. The main building will be either three or four storeys high and 500 x 80 feet. The foundry will be 300 x 60 feet and a two-storey, fire-proof pattern warehouse approximately 100 feet square will also be built. The whole will be a modern daylight plant of the best brick and mill-type construction, completely sprinkled throughout.

It is planned to break ground about May 1st, 1921, so that the plant may be ready for occupancy by November 1st, 1921. An amount in the neighborhood of $500,000 will be invested in the buildings alone.

At present No. 1 factory of the company is on Labatt Avenue, and factory No. 2 is on Carlaw Avenue, Toronto. When the new plant is complete three companies will operate in these buildings, namely: Crouse-Hinds Company of Canada, Limited; Harvey Hubbell Company of Canada, Limited.

T H-E

Help to Conserve Power

The season when power shortage is likely to be experienced has now arrived, and the co-operation of every Hydro user is earnestly requested in an endeavor to reduce general inconvenience to a minimum.

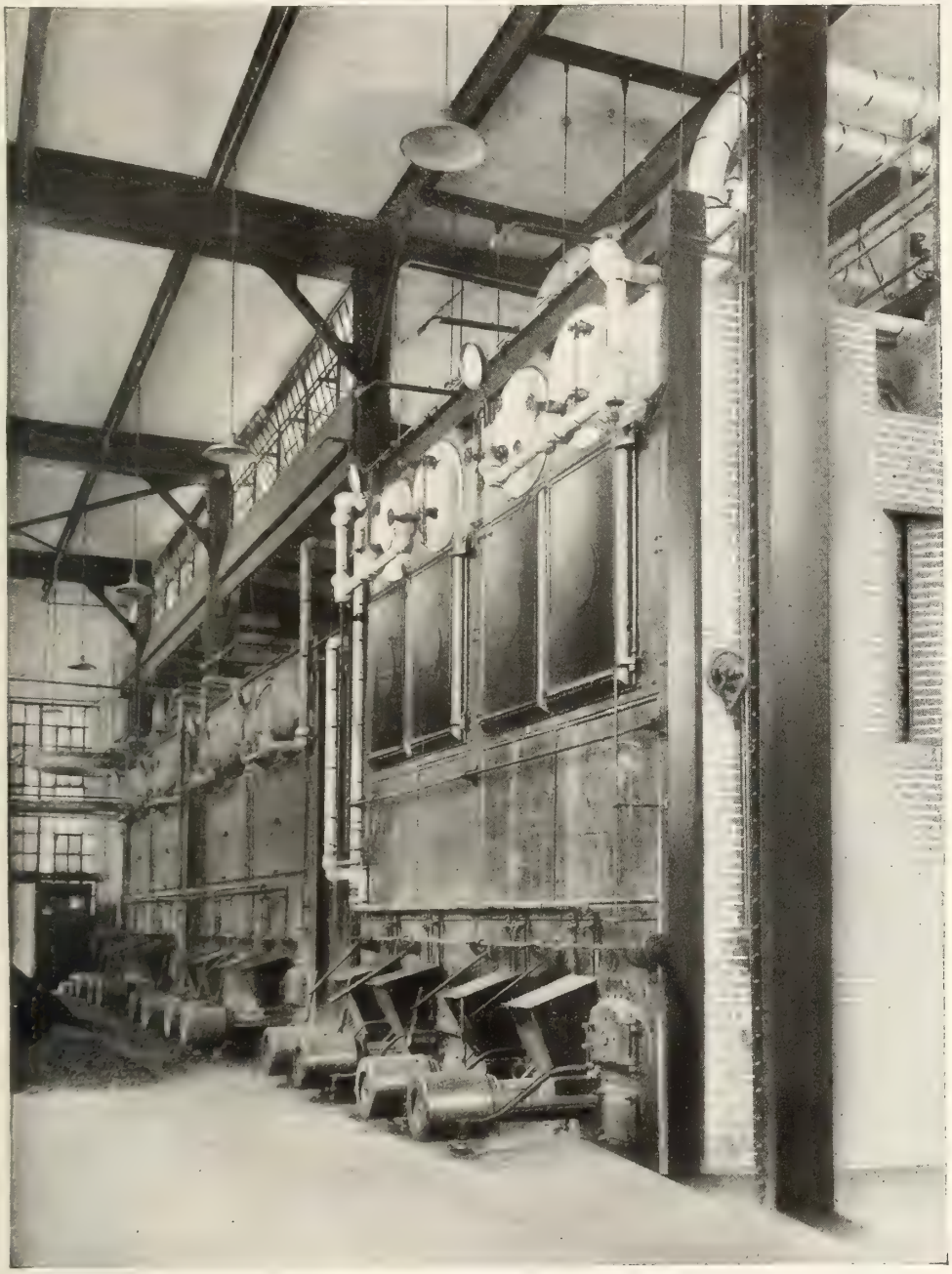
Cut out every possible idle machine, or lamp not actually required in use, and see that your plant is operated under the most efficient conditions.

Our engineers are at your service. Consult them as to ways in which you can save power. Doing so may save you money.

Toronto Hydro-Electric System

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The boiler room of the Dominion Tire Co .at Kitchener, showing in the foreground an installation of two large double drum G. & McC. Co. Sectional Water-Tube Boilers. Two more of the same size are at present under construction for this plant

G. & McC. Co.

Sectional

WATER TUBE BOILERS

are superior in design and workmanship

GREATER COMBUSTION AREA and INCREASED STEAMING CAPACITY are two important features of G. & McC. CO. Water-tube Boilers that distinguish them from ordinary boilers. They can be forced without danger. They are equipped with large steam and water drums and connecting nipples of increased size, and every part subjected to steam pressure is made of FORGED STEEL.

Our catalogues, specifications, prices, etc., will be gladly furnished to interested parties

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WESTERN BRANCH:
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QUEBEC AGENTS:
Ross & Greig
400 St. James St., Montreal, Que.

BRITISH COLUMBIA AGENTS:
Robt. Hamilton & Co.
Vancouver, B.C.

and the Hubbell-Mack Machine Screw Company, Limited. E. G. Mack will act as managing-director for all three companies.

New Factory Opened

Congoleum Company of Canada, Limited, Manufacturing Rugs and Floor Covering in New Factory

On September 1st the Congoleum Company, of Canada, Limited, commenced manufacturing operations in their new factory on St. Patrick Street, Montreal. This plant is a four-storey building with approximately 100,000 square feet of floor space. It is being used for the production of art rugs and floor covering of the Congoleum "Gold Seal" brand. These former are of various sizes, ranging from 6 x 9 to 9 x 12. The plant has a capacity of 1,500,000 square yards of floor covering and 175,000 of rugs per year.

Will Make Wire Goods

The Richmond Wire & Iron Company, Limited, Have Secured a Site at Richmond, Quebec

The Richmond Wire & Iron Company, Limited, are a new organization that are offering securities to the public in the form of an issue of $150,000, eight per cent. cumulative redeemable preference stock, says *The Financial Post.* The capitalization of the company is $1,000,000, with preferred stock of $550,000 authorized, and common stock of $450,000. The preferred stock is being offered at $100 per share, and carries with it a bonus of 40 per cent. common stock.

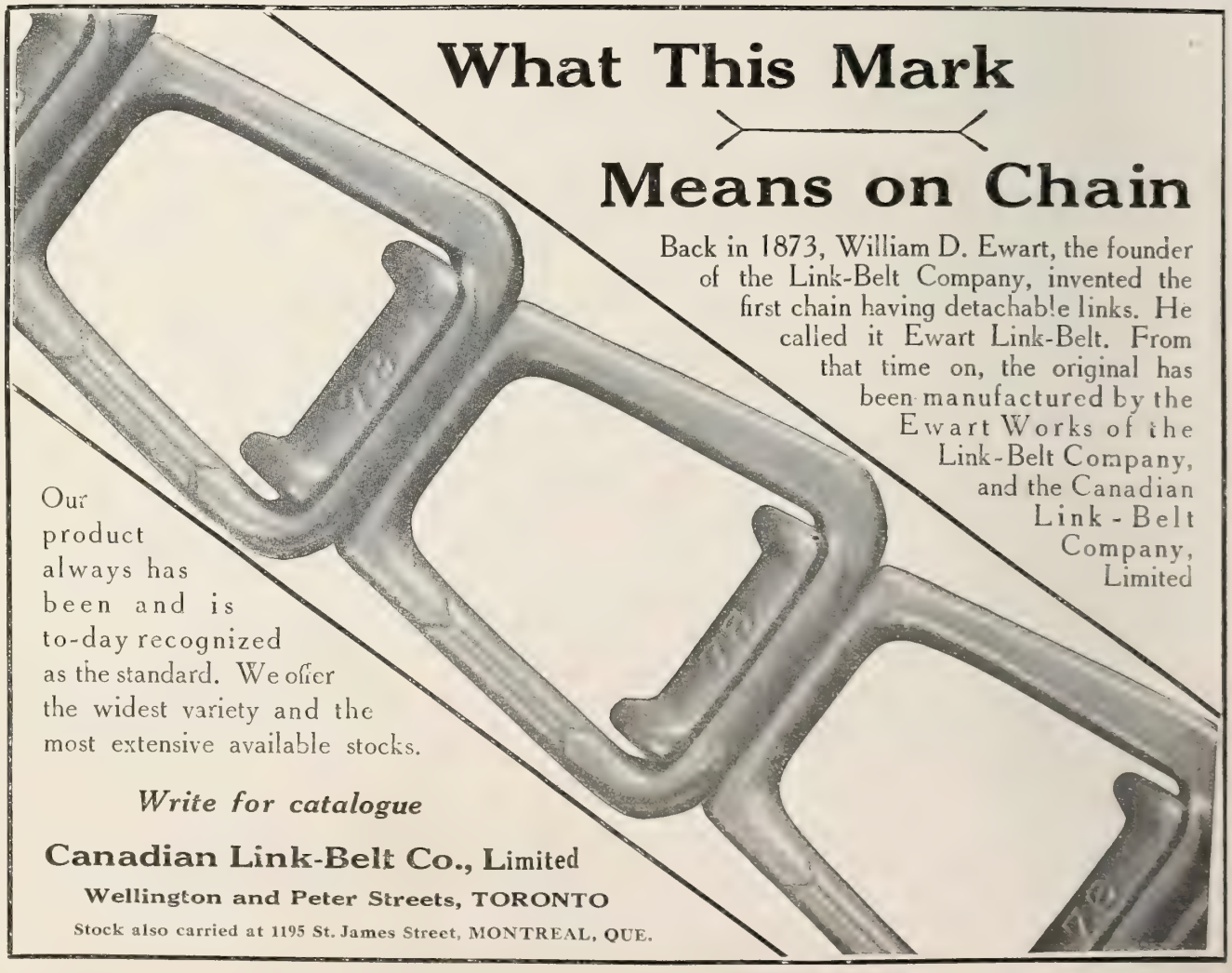
The purpose of the company is to erect factories and engage in the manufacture of wire goods of every description for household, farm, factory, business and other uses, including stamped metal goods, electrical goods, automobile specialties, metal fittings for trunks and leather goods, etc., auger bits, wrenches, forgings, etc. It is of interest to note that the prospectus declares that over 60 per cent. of these goods used in Canada at present are imported from the United States and other countries, and that during the past fiscal year the importations into Canada of small hardware and metal goods amounted to about $28,000,000.

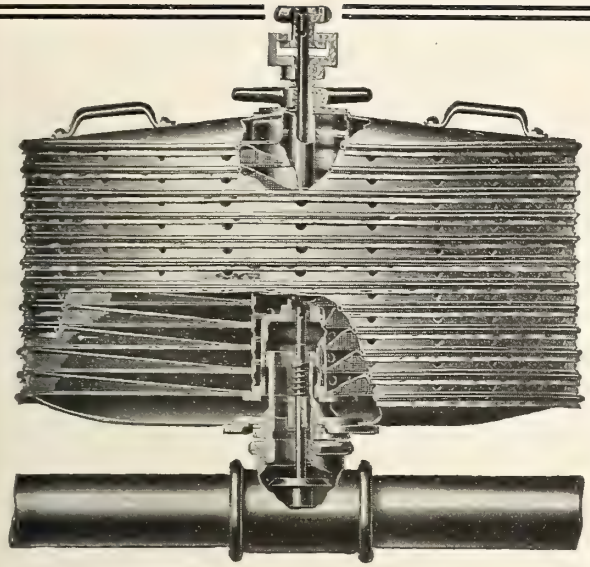
The company have secured a site of six acres at Richmond, Quebec, and will receive exemptions from taxation and other privileges from the town. Electric power will be purchased from the Southern Canada Power Company. A special effort will be made to secure as shareholders of the company hardware dealers who may become customers of the factory. One of the conditions held out to them is that they will receive an extra discount of 10 per cent. on the regular list on all lines manufactured by the company. It is the purpose of the company to deal directly with the retail trade.

New Machine Room

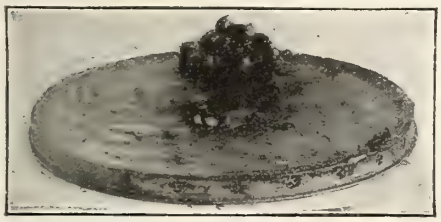
Don Valley Paper Company, Limited, Build Addition to House Paper Machine

The Don Valley Paper Company, Limited, of Toronto, have completed the addition to their plant. This consists of a





No. 1—Sectional View of Bowser Filter Section Assembled



No. 2—Filter Disc with Dirt Filtered from Oil.

It Gets the Dirt
It's a BOWSER Oil Filter

ESTABLISHED 1885

The pictures shown here illustrate the Bowser Filter Section as used in the Bowser Oil Filter.

No. 1 shows the Filter Section assembled, ready for use. No. 2 shows one of the Filter Discs with dirt that the Filter has collected from used oil. This pile of dirt is about 6″ in diameter and from 2″ to 3″ high.

There are twelve of these Filter Discs and Cloths in a Bowser Filter Section—each as effective as the one you see pictured. As many complete Filter Sections as needed are furnished in the Bowser System. You may judge for yourself as to the value of such equipment.

Bowser Systems are applicable to any size and type of power producing and transmitting machinery.

We will be glad to send literature and explain to you how the Bowser principle of Oil Filtration can be applied to your Boiler plant.

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new machine-room about 43 x 120 feet, built to house their present machine, at a cost of $20,000. The Company do not expect any immediate effect on output to result from the addition.

Making Floor Lamps

McGill-Quinn Handcraft Products to Make Fibre Furniture, Etc., at Norwood, Ontario

McGill-Quinn Handcraft Products is the registered name of a manufacturing business now being carried on by E. McGill-Quinn, at Norwood, Ontario, the present product being woven floor lamps. The firm hope soon to be able to turn out about two thousand of these per month, and later will devote their energies to the production of fibre furniture. This latter development must be postponed until additions can be made next spring to the present plant.

Fibre furniture is practically a new thing for Canada. The company state that while it is sometimes spoken of as a substitute for reed, rattan and willow furniture, it can be made superior to these in durability and finish when proper treatment is used in the finishing process.

Make Hardwood Flooring

MacDonald Lumber Company Commence Manufacturing in Maisonneuve Plant

The Macdonald Lumber Co., wholesale lumber dealers, Toronto, have commenced the manufacture of hardwood flooring at Maisonneuve, Montreal, and are meeting with encouraging results. Although only in operation a short time, the company are making ready to add new equipment and to increase the capacity of the plant. The company manufacture birch, maple, quartered cut white oak, plain red oak and beech hardwood flooring, and carry stocks in their yards at Montreal and Toronto. The brands of the Macdonald Lumber Co. are known as "Eclipse" and "Keystone" hardwood flooring. The company's office in Toronto is at 34 Victoria Street, and in Montreal at 71A St. James Street.

Enlarging Paper Plant

Kinleith Paper Mills, Limited, Expect Substantial Increase in Production

The Kinleith Paper Mills, Limited, of St. Catharines, Ontario, are enlarging one of their buildings by an addition measuring about 75 x 90 feet. The purpose of the enlargement is to lengthen out the paper machine, by doing which the company expect to increase their production by approximately 25 per cent. The estimated cost of the improvement, which should be completed by the first of next year, is in the neighborhood of $75,000.

Entirely New Industry

The Canada Cutlery Company, Limited, Will Manufacture Pocket Knives at Kingston, Ontario

The establishment of the Canada Cutlery Company, Limited, in Kingston, Ontario, brings an entirely new industry to Canada in the manufacture of pocket-knives. This Company have secured a large concrete building with floor space of something like 27,000 square feet and will commence production about the middle of January with a complete line of pocket cutlery. At the commencement, Mr. C. A. Eaton, the Company's managing director, expects that the output will be 200 dozen knives a day, and that this capacity will very shortly be increased to 300 dozen daily.

The Company are patenting their products after the Eng-

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lish rather than the American style, as they feel that English pocket cutlery is more durable than that produced in the United States. To a large extent, however, American processes will be used in the manufacture, and the plant will be equipped with the most improved mechanical devices known in this line of manufacture. The Company are purely Canadian in their formation and capital and for the time being at least will manufacture entirely for the Canadian trade.

Their raw materials, unfortunately, will have to be secured for the time being outside of Canada, horn for handle material and blade steel coming from England, and spring, lining, and bolster steel coming from the United States. The Company are anxious to buy from Canadian steel mills, but as yet have been unable to obtain quotations from any of these.

New Hamilton Industries

Don-O-Lac Company of Canada, Limited, and Canadian Metleskin Company, Limited

Two new industries to locate branches in Hamilton, Ontario, are the Don-O-Lac Company of Canada, Limited, and the Canadian Metleskin Company, Limited, whose parent companies are in Rochester, New York. Both are capitalized at $50,000, and between them they will have about 50 employees. They are under the one management, and at present will occupy joint premises in a building at the corner of Bay and Murray Streets which they have leased. It was formerly occuped by the Dowswell Manufacturing Company. Should building conditions improve next year they expect to erect separate buildings. The products of the Don-O-Lac Company are shellacs, enamels and paints, and the Metleskin Company manufactures power plant products and boiler-room supplies.

Another Hamilton Company

Boyce-Moto Meter Company, of Long Island City, Establishes Canadian Branch

Another branch industry for Hamilton, Ontario, is announced by C. W. Kirkpatrick, Commissioner of Industries and Publicity. This is an offshoot of the Boyce-Moto Meter Company of Long Island City, U.S.A. The moto-meters made by this company are standard equipment on 176 different makes of pleasure cars, trucks and tractors. At their United States plant last year 1,380,000 moto-meters were turned out and about 41,000 of these came to Canada. The Company now intend to manufacture them in this country both for Canadian trade and for export. They have leased temporary premises with the intention of building later. At the time of writing their Canadian organization has not been announced, but Samuel E. Ryder, who has been Detroit manager up to the present time, has been appointed manager of the Hamilton branch.

Now Building Plant

Bates Valve Bag Company, of Chicago, Locating Branch at Niagara Falls, Ontario

Among the numerous United States industries who are finding it advantageous to locate branches in Canada are the Bates Valve Bag Company, of Chicago, Illinois. They have purchased a tract of land on Battery Avenue, Niagara Falls, Ontario, and now have in course of construction a one-storey building of cement blocks, 48 x 75 feet, with 12-foot walls.

The company will manufacture the Bates Packer which is used for packing cement, hydrated line, pulverized limestone or any pulverized rock product. For the present castings will

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With ordinary fire-fighting apparatus, a fire must be ***seen*** before it can be attacked and only too often this means that it is too late for any effective fighting to be done.

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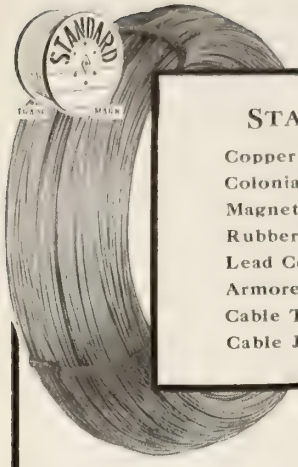
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be furnished and machine work done by the L. & P. Manufacturing Company, and the building will be used as a warehouse and assembly plant. Only two or three men will be employed for this work. The question of forming a Canadian company has not yet been decided.

Fulton Motors, Limited

St. Catharines, Ontario, to Be the Home of a Large United States Branch Industry

The location of Fulton Motors, Limited, at St. Catharines, Ontario, is announced by Hugh M. Bell, manager of the Chamber of Commerce. The company are a branch of the Fulton Motor Company of Farmingdale, N.Y., and are capitalized in Canada at $2,000,000. They are taking over the plant of the Marathon Tire & Rubber Company, Limited, on Vine Street, which is already equipped with much of the machinery needed for the production of trucks. Representatives of the company state that the first Fulton truck will be turned out in St. Catharines within two months. The trucks are to be of three sizes,—one-ton, two-ton and three-ton—to sell for $1,500, $2,250 and 3,000 respectively.

As the company are to build their own truck bodies, the erection of a large addition to the present building is contemplated. A space of some seven acres will be covered by the plant. They expect to employ one thousand hands within a year.

Garvin Denby, president of the parent company, is president of the St. Catharines branch, and Alfred F. Irwin is first vice-president. Another director is C. W. Whitmore, formerly of the Packard Motor Company. J. Bell, chief engineer of the parent company, is to fill the same position in Canada, and W. H. Hyslop, formerly connected with the Jackson Motor Company, is also associated with the Canadian Fulton Motors.

Branch Factory at London

Ruggles Motor Truck Company, Limited, Constructing First Unit of Their Plant

The location of the Ruggles Motor Truck Company, Limited, in London, Ontario, is due to the enterprise of Alderman Bridges, who made a tour of the United States some time ago for the purpose of inducing industries to establish their Canadian branches in his city. The Ruggles Company are a branch of a firm in Alma, Michigan. They are now erecting the first unit of their plant, a building 417 by 80 feet, constructed of brick and steel sash. Three sizes of motor trucks will be turned out, 1½ ton, 2½ ton and 3½ ton.

The principal officers of the company are: F. W. Ruggles, president; E. L. Smith, secretary; M. Pringle, treasurer; C. D. Smith, in charge of manufacturing; G. R. Wilber, director of purchases, and D. M. Britton, in charge of engineering. The capitalization is three million dollars.

A Phonograph Factory

William Gunn, of Saginaw, Michigan, to Make Phonographs in Wingham, Ontario

William Gunn, of Saginaw, Michigan, U.S.A., has purchased the Walker & Clegg factory in Wingham, Ontario, and will manufacture phonographs there. This factory is a brick building 188 feet long with a width of 40 to 80 feet. The heating system is being changed and machinery is being installed. These alterations should be finished by the middle of November. The phonographs will be known as the Gun-Son-Ola Talking Machines.


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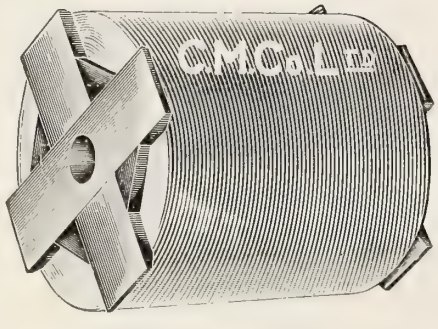


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We are the Largest Manufacturers of White Metal Alloys in the Dominion

The Canada Metal Co., Limited
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To Make Hydraulic Hoists

Wood Hydraulic Hoist and Body Company of Detroit, Establishing Branch at Windsor, Ont.

Another United States manufacturing firm to establish a branch in Canada are the Wood Hydraulic Hoist and Body Company of Detroit, who are opening a plant in Windsor, Ontario. They will manufacture hydraulic hoists and steel dump bodies for application to motor trucks, and expect to be operating about the beginning of November with a force of from ten to twenty men. At present the company will not organize under a Canadian charter but will operate under the same firm name as in the States. A. G. Kerr is manager of the Canadian branch.

Ingersoll Knitting Company

Knitting Plant at Ingersoll, Ontario, Will Soon be Running to Full Capacity

The plant of the Ingersoll Knitting Company at Ingersoll, Ontario, is almost ready to be operated to its full capacity. The machinery, which is all new and of the latest pattern, includes ten sewing machines and three knitting frames. Wash cloths, towels and bibs are to be manufactured, and five hundred dozen a day can be turned out. From twenty to thirty hands are to be employed. A steam heating system is being installed to supply heat for the whole factory.

The owner and manager of the company is L. Waterhouse, formerly secretary-treasurer of the Thomas Waterhouse Company, Limited, of Ingersoll. The words "Ingersoll Knit" have been adopted as the company's trade mark.

Pulpwood and Lumber

Hawk Lake Lumber Company, Limited, Now Operating a Mill at Monteith, Ontario

The Hawk Lake Lumber Company, Limited, are located at Monteith, Ontario, where they have purchased the rossing mill and sawmill formerly owned by the Monteith Lumber Company, Limited. Regarding their plans, A. E. Wicks, president of the company, makes the following statement:—

"We will be taking out about 15,000 cords of spruce and balsam this season at our two mills. Eighty per cent. of this will be turned into pulpwood, some of it being rossed and the rest shipped rough. The other twenty per cent. will be sawn into lumber of which we expect to saw possibly a quarter of a million feet next summer. Next summer drum barkers will be installed at our Monteith mill to replace the disc barkers. Our timber supply is adequate for ten to twelve years with even a larger capacity than this season's cut."

International Laboratories, Limited

Have Erected Factory at St. Boniface, Manitoba, and Will Make Paints and Varnishes

International Laboratories, Limited, a company capitalized at a quarter of a million dollars, fully paid, and located at St. Boniface, Manitoba, have completed a five-storey factory of reinforced concrete and brick, approximately 100 feet square. They will manufacture in this a full line of paints, varnishes and the usual sundries which go with these lines. They also have under construction a varnish factory which will be 100 x 35 feet. At present about forty hands are employed.



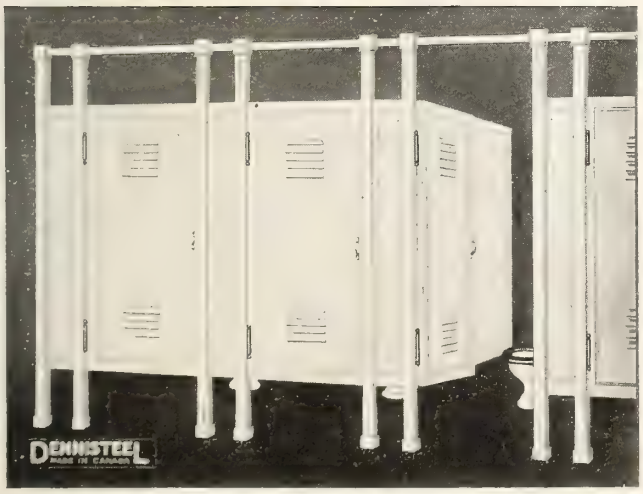
Gilbert J. P. Jacques, Architect — St. Joseph School, Windsor, Ont.

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They can be enamelled to harmonize with the most elaborate fixtures or decorative effects

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The development of the Cafeteria or Cafe for industrial organizations has been very rapid of late. Employers of labor realize that this system of having pure, healthful food available for sale at reasonable prices, right within convenient reach, is very beneficial to the moral of their workmen.

It is not sufficient, however, to merely approve the establishment of this new departure; it is very essential that no risks should be taken in its satisfactory installation.

It is with perfect confidence that we, McCLARY'S, offer our services to any architect or buyer who desires to obtain specification, layouts and prices without obligating himself. Our experts are ready at any time to give their personal and courteous attention to any enquiry submitted.

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Making Motor Trucks

Gotfredson-Joyce Corporation, Limited, Estimate First Year's Output at Over One Thousand

The Gotfredson-Joyce Corporation, Limited, were incorporated this year under a Dominion charter, and are manufacturing G. & J. motor trucks at Walkerville, Ontario. Benjamin Gotfredson and Robert Gotfredson are president and vice-president respectively of the company, and Frank H. Joyce is secretary-treasurer. The company expect to produce between one and two thousand trucks during their first year of operations and are employing about one hundred hands. The capitalization is $100,000, all paid in in cash.

Lumber and Pulpwood

Franquelin Lumber and Pulpwood Company, Limited, Are Subsidiary of Ontario Paper Company

The Franquelin Lumber & Pulpwood Company, Limited, are a subsidiary of the Ontario Paper Company, Limited, operating at Franquelin under the presidency of W. H. Eshbaugh. Lumber and cut wood in 4-ft. lengths are the products, and from one to six hundred men, according to the season, are employed. The paid-up capital is $850,000. About one hundred and twenty-five square miles on the Franquelin River are comprised in their timber limits.

Feed Meal Plant

Mount McKay Feed Company, Limited, Will Soon Complete New Buildings

The plant being erected at Fort William, Ont., by the Mount McKay Feed Company, Limited, is well under way and should be grinding by November 15th. The company are a limited stock company with paid-up capital of $35,000 and employ from five to seven men. The plant consists of a small elevator and feed plant with floor space of 8,500 square feet and capacity for storing 200 tons of hay. The elevator capacity is 10,000 bushels and the output of the feed mill will be 20 tons a day. All kinds of chop feed and feed meal will be manufactured, poultry supplies being a specialty.

Manufacturing Fertilizers

Pacific Guano Company, Limited, Are in Operation at Barnet, B.C.

Among newly-organized Western companies are the Pacific Guano Company, Limited, which was recently started by C. H. Devine at Barnet, British Columbia. The products of this company are fish meal and fish oils obtained from any suitable kind of fish or fish offal. As there are legal restrictions against using any fish that is good for human consumption the suppy of raw material is variable, but since manufacturing operations commenced, on July 12th last, the plant has run from eight to ten hours a day.

Dogfish is one of the chief forms of raw material and can be procured in large quantities from November to April. From April to November, when there is no dogfish to be had, the supply of other fish from packing-houses is spasmodic. A supply is also obtainable from cold storage fish that have spoiled.

The plant running twenty-four hours would take from 16 to 20 tons of fish which would yield about four tons of fish meal worth $100 a ton, and some 160 gallons of oil worth from 65 to 75 cents a gallon. The cooker holds about 3½ tons to a cooking. The hydraulic press has a pressure of 2,500 lbs.

THE HAMILTON BRIDGE WORKS COMPANY

HAMILTON, CANADA LIMITED

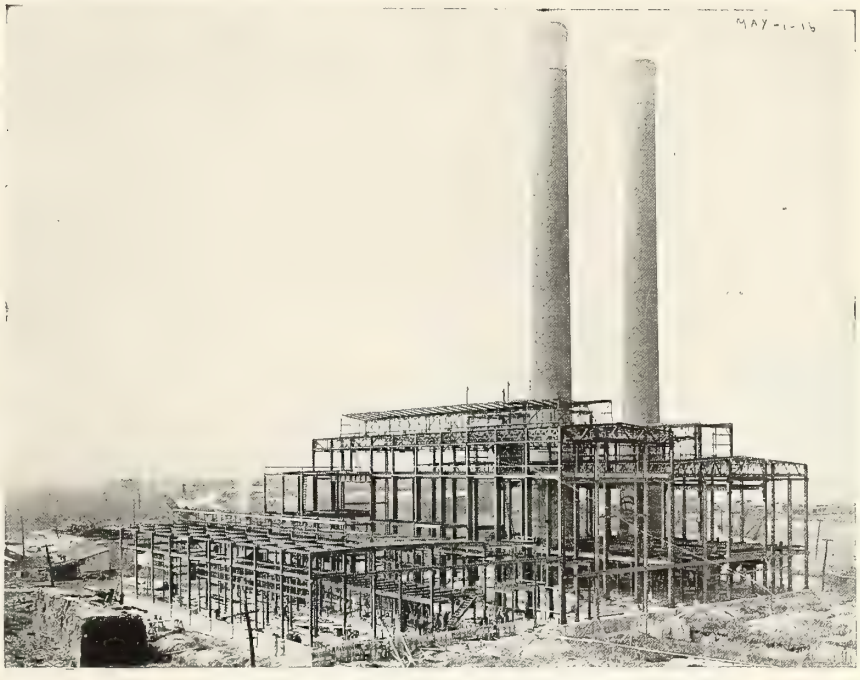
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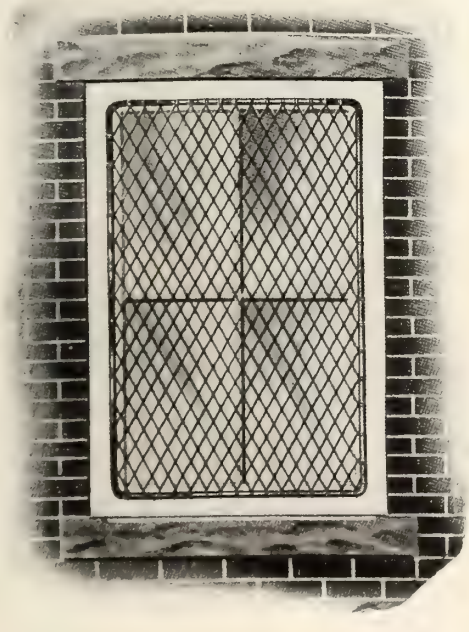
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to the square inch and the dryer 800 lbs. The drying takes about 2½ hours. Machinery is run by four electric motors and steam is used only in the cooking and drying.

The company are capitalized at $50,000 and all stock has been sold locally. Robert Pidgeon, of the Pidgeon Fertilizing Company, Limited, of Windsor, Nova Scotia, is actively associated with the Pacific Guano Company, being a director and manager. William Cross, of the Imperial Trunk and Leather Goods Company, Vancouver, is president, and James Alexander and C. C. Kernahan are directors. The former was a member of the Alexander & Perkins Fertilizer Company of Glasgow, and the latter is with the Soldiers' Civil Re-Establishment. C. H. Devine, organizer of the company, acts as general superintendent and secretary-treasurer. Seven men are employed.

The company intend to add commercial manures and hen and cattle foods to their present list of products. They report that the demands for these greatly exceeds the quantity they are at present able to turn out.

Small Fire at Brandon

Plant of Western Canada Flour Mills Company, Limited, Will Soon be Repaired

An explosion and fire occurred on October 22nd at the Brandon plant of the Western Canada Flour Mills Company, Limited. The company report that newspaper accounts of this were greatly exaggerated, since the loss amounted to only $9,000. The damage is being repaired and the mill should be running again, fully equipped about the first week of November.

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CANADIAN RECONSTRUCTION ASSOCIATION
Head Office—6 Jordan Street, Toronto

September 25th, 1920

Pathescope of Canada Limited
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Dear Sirs:

Not only have the Industrial Motion Pictures prepared by your Company proved very satisfactory for circulation in Canada, but, owing to their attractiveness, numerous copies have been ordered for foreign circulation at no cost to the Association. The value of motion pictures for purposes of publicity is beyond question.

Yours sincerely,

NOTE CAREFULLY the opinion expressed by Sir John Willison in his letter reproduced here. Does it not convince you of the value of Pathescope Industrial Motion Pictures?

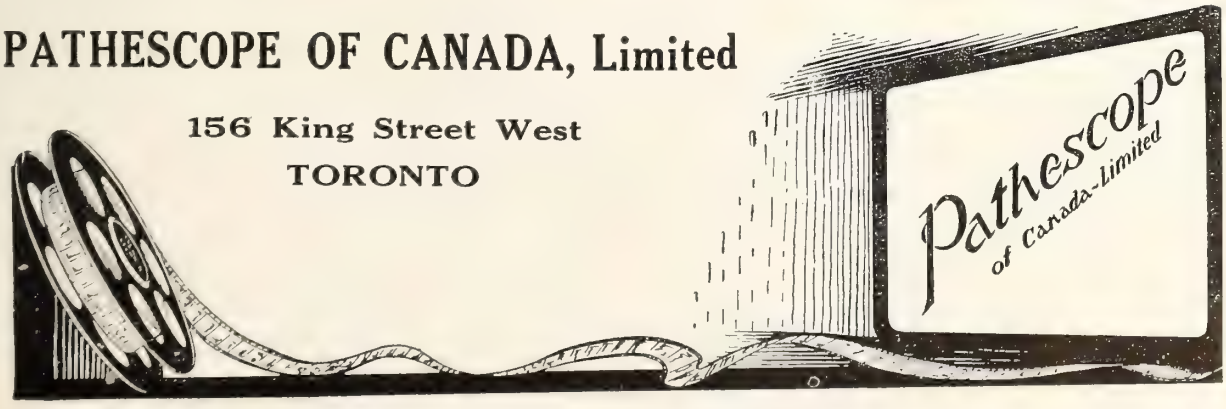
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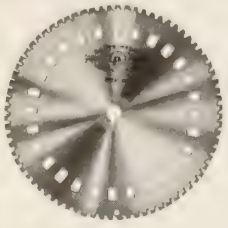
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Expansion of Indo-Canadian Trade*

By P. F. SCHARSMIDT

THE fact that in 1917-1918 the total Canadian exports to India were only £50,377, whereas those of the United States were £7,875,854 for the same period is a sufficient commentary on the possibilities of Canadian trade expansion with that country.

At the outset I must emphasize the primary importance of Canadian manufacturers realizing the extraordinary industrial development now proceeding in India.

During the war India was compelled to make provision for local production of many articles previously imported, and in addition to her own requirements was called upon to furnish vast quantities of war material for other fields of operation, and her then existing factories and industrial plants were developed to an enormous extent. The Government fostered technical education both for their home factories and to supply efficient mechanics and artisans in other zones. Immediately following the war, the Government of India appointed an industrial commission who are still sitting, their object being to encourage to every possible extent the expansion of home industrial development. To this end they are rendering large financial assistance to certain industries, and initiating the actual development of new industries. With the speeding up of production and the agitation of labor leaders for a betterment in labor conditions came a material increase in the wage scale, the earning capacity of the laborer and mechanic in many cases being doubled. This condition has brought about a very marked improvement in the social and economic status of the people, and among them one sees on all sides an awakened ambition for improvement in dress and food and general culture.

With a population of 400,000,000 (including Ceylon) with an energetic and determined Government policy to increase industrialism, and with the speeding power of its people rapidly increasing by wage increments, accompanied by a growing desire for an improved standard of living, one can grasp the vastness of the Indian market and appreciate the immensity of its commercial potentialities and opportunities for trade.

Lack of Knowledge of Canada

In visiting the various centres I was impressed by the lack of knowledge on the part of importers regarding Canada's ability to supply any of their requirements, this being due entirely to the absence of any commercial advertising or trade propaganda by Canadian firms and to the entire absence of any direct steamship connection with Canada at that time.

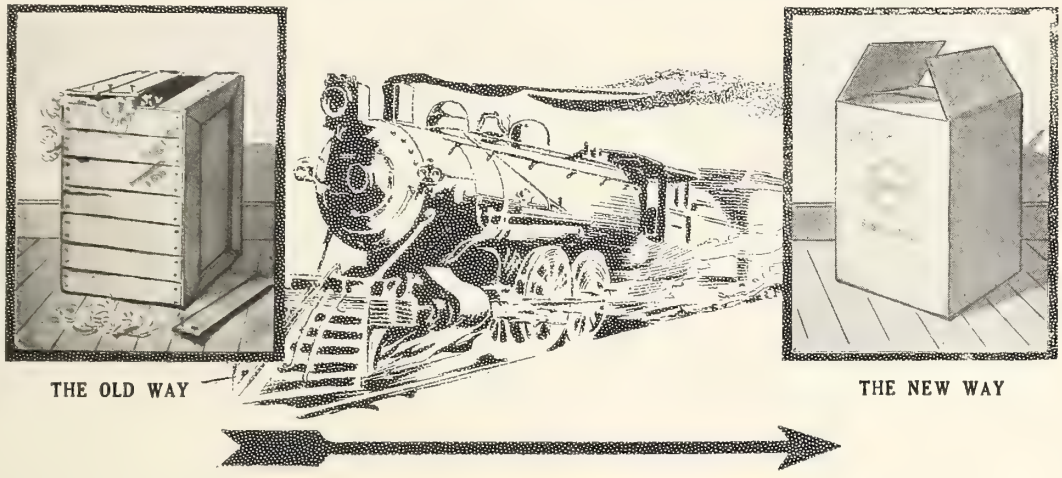
In discussing trade matters with the various commercial bodies and firms, I was assured of an earnest and sincere desire on the part of importers to confine their orders to the Empire. The United States and Japan are constantly carrying on a very active trade campaign in India, and the result of the activity of the former is an increase in the three years 1914 to 1917 of £4,755,903, or approximately 150 per cent.

The methods adopted by some of the United States firms are as follows:—

1. Manufacturers send capable representatives throughout the country, who carry with them catalogues of an up-to-date

*Reproduced from the weekly bulletin of the Department of Trade and Commerce, Ottawa.

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educational character and as far as possible a line of samples. As a result of their investigation various firms are approached with a view to establishing an agency; this being effected an exclusive agency agreement covering a specified period is entered into whereby the United States principals supply the agent with a full line of samples and in many cases small consignments are also supplied, the agency in most cases paying advertising costs.

2. As a result of preliminary investigation, branch houses of the American firms are established, carrying full lines of their products in demand. This plan is largely adopted in connection with machinery of all kinds, including tools and small hardwares, iron and steel products, provisions and oilmen's stores, druggists' sundries and specialties, office fixtures and specialties.

3. The introduction of United States goods by firms availing themselves of the selling organization of various export and distributing agencies with established connections in the Orient.

In the large trade centres such as Calcutta, Bombay, Madras, Rangoon, and Ceylon are various old established firms of highest reputation and strong financial ability, who carry on indent businesses. They employ native brokers who accept orders from the bazaars (that is the native retailer) on a percentage basis, but in turn assume the financial responsibility and guarantee account by established credits against shipments. These houses are especially serviceable in connection with smaller specialties.

Packing of Commercial Samples

I cannot impress too strongly the necessity of giving the greatest care to the preparation, packing and shipment of commercial samples. If of an edible nature they should be packed in an outer container of metal hermetically sealed; and confectionery, breakfast foods, cocoas, and dried fruit or vegetables must be invariably packed in air-tight containers, either metal or glass.

The manner of quotations should in all cases be c.i.f. Indian port, and although I am aware that the question of funds is a contentious one, I strongly recommend sterling quotations as far as possible until such time as sufficient information is obtainable in India regarding the relative value of Canadian and New York funds; at the time of my visit but slight and indefinite information on this point could be had and to my knowledge this was detrimental to Canadian trade when quoting against United States prices.

Catalogues Wanted

British Legation at Montevideo Will Place Canadian Catalogues in Information Department

The British Legation and Consulate-General at Montevideo, Uruguay, have opened a special section for trade information. It is proposed to collect all the latest commercial data to have it accessible to the merchants of Uruguay who will be notified through the press of the arrival of the latest catalogues and other commercial publications. The British Minister has very kindly offered to place in this special section the catalogues of Canadian manufacturers. The Canadian catalogues will be classified, and their arrival will be announced to the public of Montevideo free of charge. It is hoped that Canadian manufacturers will avail themselves of this kind offer.

METHYLATED SPIRITS
(Denatured Alcohol)

CANADIAN INDUSTRIAL ALCOHOL COMPANY LIMITED

DURING the last session of parliament, the Inland Revenue Act was amended so that the sale of Methylated Spirits (denatured alcohol) is no longer controlled and carried on by the Department of Inland Revenue.

Our Distillery at Corbyville, Ontario,—the largest Industrial Alcohol plant in the British Empire—is fully equipped and thoroughly organized to serve manufacturers who use Methylated Spirits or Denatured Alcohol.

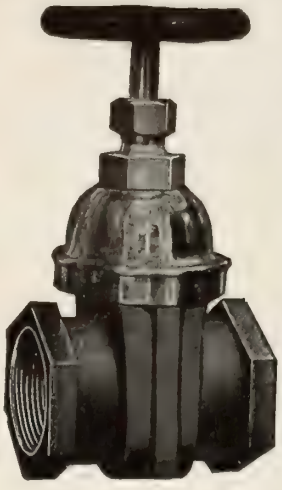
We will be pleased to place at your disposal the advice of our chemists in regard to the use of specially denatured alcohol. One of these formulas may prove more suitable in your business than that which you are now using.

We also manufacture Ethyl Alcohol, Cologne Spirits, Fusel Oil and Non-Potable Alcohol.

All orders received by us will be given the prompt and careful attention that only an organization such as ours can give.

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History of Canadian Nickel Industry*

By G. E. SILVESTER

THE history of the nickel industry in Canada dates from the incorporation, in January, 1886, of The Canadian Copper Company, now The International Nickel Company of Canada, Limited, by S. J. Ritchie, of Akron, Ohio, and some business associates from Cleveland, Ohio.

The original holdings were acquired by Mr. Ritchie in 1885 from prospectors who had been prompted in their search by the exposure of ore in a rock cut at Murray Mine, near Sudbury, during the construction of the Canadian Pacific Railway then recently completed through that district.

The early discoveries were taken up for copper only, the presence of nickel not being suspected; hence the inappropriate name—"The Canadian Copper Company."

In 1888, after a good deal of preliminary investigation, a smelting plant, with one small blast furnace, was designed and built at Copper Cliff, by Dr. E. D. Peters, who had been engaged as manager.

Dr. Peters had stated that a furnace to smelt 100 tons per day would be "enormous and unprecedented," and when asked later if he thought the smelter could be enlarged to treat 300 to 500 tons per day, said it might be done, but such large figures were very bewildering, as no plant in America was treating so much.

It required comparatively little nickel at that time to swamp the entire world's markets, consumption being only about 1,000 tons annually, and it was only with the development of nickel-steel and its adoption for armor-plate by the United States Navy that The Canadian Copper Company began to get on its feet.

In the meantime, from 1890 to 1894, several other nickel companies entered the Sudbury field, operated smelters for varying periods and disappeared, among whom may be mentioned the H. H. Vivian Company (Murray Mine), the Dominion Mineral Company (Blezard Mine) and the Drury Nickel Company (Chicago Mine).

Later in 1900-01 the Great Lakes Copper Company tried out the Anton Gras process at Mount Nickel. In 1900-01 the Nickel-Copper Company of Ontario, also, with plants at Worthington and Hamilton, attempted to use, first the Hoepfner process and then the Frasch process.

In 1902-03 the Lake Superior Corporation operated a smelter at Gertrude Mine. A number of other companies entered the field, but never reached the stage of active production.

The Canadian Copper Company's operations, however, continued to grow in spite of difficulties and disappointments, financial, metallurgical, mechanical and economic. The original (East) Smelter was enlarged from time to time until there were six furnaces, and further expansion on the original site was practically impossible. Then, in 1899, the West Smelter was built. This was an up-to-date plant, with eight furnaces, but still using the same type of small Hereshoff water-jackets, hand-fed and with hand-pushed matte buggies. Most of the slag had been granulated since 1891.

The first 600 tons of furnace matte made at Copper Cliff was shipped to H. H. Vivian & Company, Swansea, and averaged 39.5 per cent. copper-nickel. Other shipments followed to Vivian & Company, Le Doux & Company, New York; Jos. Wharton, Philadelphia; Tennant & Company, Liverpool; The

*Reproduced from "The Inco," the bi-monthly publication of the International Nickel Company.

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Orford Copper Company, Bayonne, N.J., etc., until finally a contract was made with the Orford Company to take all the output.

Heap roasting of the ore was practised from the beginning, the early contracts specifying a maximum of 9 per cent. sulphur. In 1889 experiments were made in the smelting of green, or unroasted, ore, which proved satisfactory.

In the fall of 1891 a Bessemer Converter plant was built, using the old Parrot type of converter. This was operated intermittently during 1892.

Ontario Smelting Works.

In 1900 the Orford Copper Company built the Ontario Smelting Works at Copper Cliff, to further concentrate the blast furnace matte before shipment to the refinery. The furnace matte was crushed, ground in ball-mills, oxidized in Brown straight-line reverbatory calcining furnaces, briquetted and smelted in brick cupola furnaces, giving about a 75 per cent. matte.

When the first smelter was built in 1888, three mines were in operation; namely, Copper Cliff, Evans and Stobie. These continued to supply the major part of the ore requirements, until about 1899. No. 2 Mine was opened up in 1898 and Frood, or No. 3 Mine, in 1900, several other deposits, such as McArthur, No. 1, No. 4, No. 5 and No. 6, having been opened up and abandoned in the meantime.

In 1901 the construction of the Manitoulin and North Shore Railway (now the Algoma Eastern Railway) from Sudbury to Gertrude Mine provided an opportunity to develop Creighton Mine, which soon proved to be a very extensive ore-body.

This brings us to the formation, in 1902, of The International Nickel Company, which combined with certain other interests, the Canadian Copper Company, operating mines and smelter; and the Orford Copper Company, operating the refinery. The former company, however, retained its name and identity until its amalgamation with The International Nickel Company of Canada, Limited, in 1918.

The inception of the new organization, in 1902, marked the beginning of a period of rapid development made possible by an ample supply of capital. The first step was the construction of a modern smelting plant on a new site, employing large units, with everything possible operated mechanically. The Ontario Smelting Works was superseded by a Bessemer Converter plant adjoining the blast furnaces, using the latest type of acid copper converters. The most advanced mechanical practice was followed throughout; for example, the use of alternating current for the operation of cranes and converters.

This plant was blown in on July 20th, 1904. The first installation consisted of two blast furnaces, 50 by 204 inches, and three acid converter stands. Steam power was used at the smelter until the construction of the High Falls Hydro-Electric Plant, which was put into service in February, 1906, a thirty-mile transmission line having been completed to Copper Cliff, with branches to Creighton Mine and the newly opened Crean Hill Mine. Since that time everything at mines and smelter has been operated electrically, except railway transportation.

Expansion Since 1904.

The present smelter, since it began operations in 1904, has experienced a practically continuous programme of expansion and evolution to provide for increased production requirements and changes and improvements in smelting practice.

The two blast furnaces have increased to eight, five of

Canadian Manufacturers

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these being of the original length, one a quarter longer, and two a half longer.

The three acid converter stands became ten and then were shortly afterwards replaced by large basic converters of modified Peirce-Smith type, 37 by 10 feet. The first of these was blown in in March, 1911. There are now six in service.

To take care of the flue dust and excess ore fines a Reverbatory Plant was built in 1911, with two furnaces, 19 by 112 feet, using pulverized coal for fuel. This was the first reverbatory installation of this kind, and has since been widely copied in copper practice.

The reverbatory plant includes four Wedge mechanical roasting furnaces, with ball-mills for fine grinding.

The Roast Yards, which at one time formed three angles of a triangle surrounding Copper Cliff, much to the discomfort of the inhabitants, but which later were confined to one location about a mile from the town, were finally moved, in 1916, to a new site about nine miles west of Copper Cliff. Unloading and bedding of raw, or green ore, and reloading of roast ore, both of which operations were formerly done by hand, are now carried out mechanically, the latter by steam shovel (for some years past), and the former by the electrically operated travelling ore-bridge installed in 1919, which did away with the last of the company's large manual operations.

Experimentation and research work are being continually carried on, and have resulted in many improvements in practice, as well as numerous failures. Among the latter may be mentioned repeated attempts at different times and by different metallurgists to accomplish pyritic smelting, which, if successful, would do away with heap roasting.

With the exception of the sporadic operations referred to above, the Canadian Copper Company was the sole smelter of nickel ores in the Sudbury district till the advent of the Mond Nickel Company, who began to produce, in 1901, at Victoria Mines. Their new smelter at Coniston was completed in 1913.

The only other company to enter the field since 1901 is the British-American Nickel Company, whose smelter at Nickelton and refinery at Deschenes, Quebec, began operations early this year.

Some idea of the growth and importance of the nickel industry in Ontario may be gathered from the following figures taken from Ontario Bureau of Mines reports:

SUDBURY DISTRICT.

Ore Smelted—	1890.....	59,329 Tons
" "	1900.....	211,960 "
" "	1910.....	628,947 "
" "	1918.....	1,559,892 "

Oatmeal Mill Burned

Tillsonburg Plant of the Canadian Cereal and Flour Mills, Limited, Destroyed by Fire

On October 14th the Tillsonburg plant of the Canadian Cereal & Flour Mills, Limited, was destroyed by fire. This plant was used by the company for the manufacture of rolled oats and oatmeal, and the company have since been securing these products in sufficient quantities to meet their present contracts and provide for possible requirements of their customers.

The company report that grain and stock carried 100 per cent. insurance, and building and plant 90 per cent. co-insurance. The exact loss cannot be determined until a meeting with the insurance adjusters has taken place. At present plans for rebuilding the plant are not formulated, as they are largely dependent on the company's success in securing a plant or plants for immediate operation.



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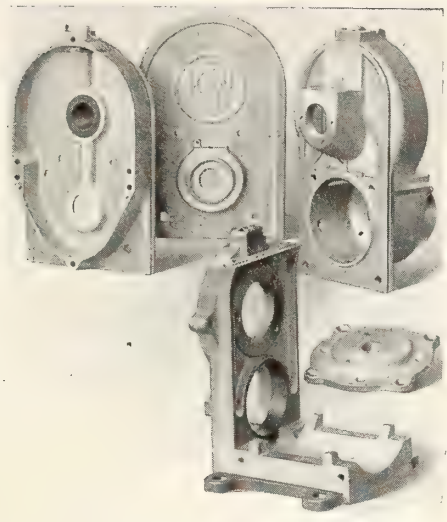
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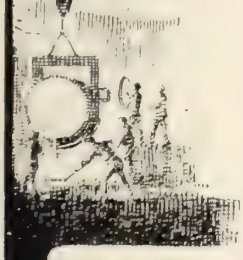


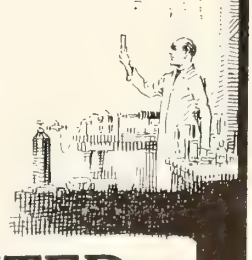
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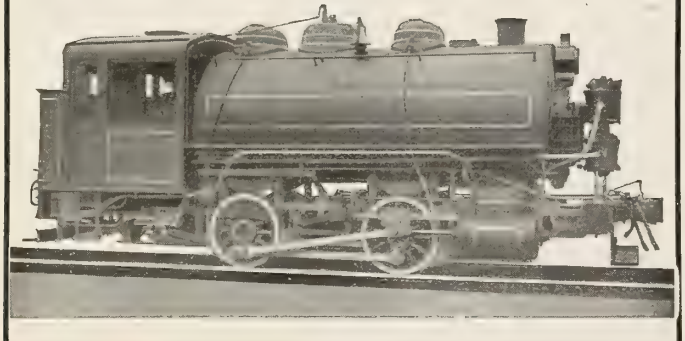
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Legislation Committee

New Members Added to the Committee at Inaugural Meeting Last Month

At the first meeting for the year of the Legislative Committee, held at the head office on October 22nd, the following names were added to the Committee:—

J. O. Thorn	Metallic Roofing Co. Ltd.	Winnipeg, Man.
F. J. Travers	Travers Aprons, Limited	Ottawa, Ont.
H. G. Wright	E. T. Wright Co., Limited	Hamilton, Ont.
H. H. Morris	1900 Washer Co., Limited	Toronto, Ont.
A. M. Spear	Asbestos Man. Co., Limited	Lachine, P. Q
W. S. Morden, K.C.	Dominion Match Co., Limited	Toronto, Ont.
R. J. Simpson	Arnprior Cabinet Co., Limited	Arnprior, Ont.
W. Gordon	Steel Trough Machine Co., Ltd.	Tweed, Ont.
W. B. Tindall	Consumers Box & Lumber Co., Ltd.	Toronto, Ont.
A. J. Mitchell	Canadian National Carbon Co., Ltd.	Toronto, Ont.
Geo. Slater	Geo. A. Slater, Limited	Montreal, P. Q
Atwell Fleming	Atwell Fleming Printing Co., Ltd.	Toronto, Ont
C. B. Lowndes	Lowndes Co., Limited	Toronto, Ont.
A. W. White	George White & Sons Co., Ltd.	London, Ont.
Wm. Georgeson	Tuxedo Coffee & Spice Mills, Ltd.	Calgary, Alta.
Thomas Reynolds	Quaker Oats Co., Limited	Saskatoon, Sask.
G. D. McKinnon	MacKinnon Steel Co., Limited	Sherbrooke, P. Q.
Alfred Jephcott	Dominion Paper Box Co., Ltd.	Toronto, Ont.
Hon. E. J. Davis	Davis Leather Co., Limited	Newmarket, Ont.
Joseph Ruddy	Canada Starch Co., Limited	Brantford, Ont.
Geo. E. Rason	Fredk. Stearns & Co., Ltd.	Windsor, Ont.
W. B. Coghlin	B. J. Coghlin Co., Ltd.	Montreal, P. Q.
J. A. Reid	Hartt Boot & Shoe Co., Ltd.	Fredericton, N.B
R. H. MacKay	MacKay & Fraser, Limited	New Glasgow, N.S
W. H. Leckie	John Leckie Co., Limited	Vancouver, B.C.
F. Magee	F. Magee, Limited	Port Elgin, N.S.
Thos. Roden	Roden Bros., Limited	Toronto, Ont.

That American capital is coming into Canada at the rate of two hundred million a year is the estimate made in official circles at Ottawa. This money is going, not into industry alone, but into Canadian securities, federal, provincial, municipal, and railway as well. According to an authoritative statement made in Ottawa recently, out of the two hundred and seventy-five millions invested in the Canadian pulp and paper industry, now in process of great expansion, about eighty per cent. is American. A recent financial statement issued in New York placed at five hundred and twenty-four millions the amount of Canadian loans in the United States, exclusive of the amount in Canadian war bonds. The rate of exchange at the present time is all in favor of United States capital being invested in Canada whilst it is working against the influx of British capital.

The annual logging payroll of British Columbia is $12,500,000; that of sawmills $9,750,000, of logging railroads $1,750,000, and of paper mills over $3,000,000. Other woodworking industries bring the grand total to $121,000,000, which payroll is distributed among 100,000 employees, making an average payment of $100 per month for all workers in mills and logging plants. The forestry payroll is about 25 per cent. of the total payroll of the industries in the province.

The Coalmont Collieries, Ltd., have recently opened a mine near Coalmont, B.C., and on the completion of an aerial railway of two and a half miles, will commence shipping to Vancouver for the domestic market. They are now producing 150 to 200 tons per day, but before the winter will have a production of 1,000 tons.

A second cable from the mainland to Vancouver Island is to be laid immediately by the British Columbia Telephone Company, according to announcement. The cost will be $350,000.

W. D. Rock has left England for British Columbia, having organized interests in the British Isles to undertake the establishment of an iron and steel industry at Vancouver.

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of all kinds

ROUND STEEL WELDED TANKS
Top End Open



Made any gauge iron up to ¼-inch plate, welded throughout, making them like a one-piece tank, therefore cannot leak. Formerly these tanks were riveted and, as they were made of black iron, they could not be soldered and were therefore very liable to leak, in fact the lighter tanks could not be made leak-proof, but the new welding process has changed all this and we can now give you a tank that we can guarantee absolutely. We specialize on heavy tanks for manufacturers, finished round top with heavy angle steel if so desired.

SQUARE WELDED STEEL TANKS

Made any size or shape to suit. Being welded throughout they are just like one piece of tank, and there is no chance of leakage as with the riveted tank. We can supply these up to ¼-inch plate. We finish them around top if desired with heavy angle steel and the larger ones with extra cross and upright braces. Can supply any necessary Pipe Fittings.

Also Air Pressure and Gasoline Tanks



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COPPER ELECTRICAL BUS BAR

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Port Hope - Ontario

An Analysis of the Income Tax

(Continued from page 73.)

would have to be assessed against farm lands and the effect of such assessment ought to be considered with the utmost care.

"(*b*) By a graduated personal income tax."

A levy of this kind already is being collected by the Dominion Government under the Income War Tax Act, 1917, with rates which are higher than those in the United States and are satisfactory to the Council. The limitations upon revenue from this source, under the conditions obtaining in Canada, have been shown.

"(*c*) By a graduated inheritance tax on large estates."

All the Canadian Provinces already are collecting heavy succession duties or inheritance taxes, and encroachments by the Federal authorities upon this revenue source as well as upon the income tax field, would be opposed and resented by the provincial administrations. Moreover, the consequences of taxing inheritances at higher rates than those in force in other countries and, particularly, in the United States must be considered, especially at a time when Canada needs new capital to assist in its development. Again, experience in Great Britain and elsewhere has been that to an increasing extent insurance is taken out to protect against succession duties and that the inheritance tax tends to become in effect, an additional income tax.

"(*d*) By a graduated income tax on the profits of corporations."

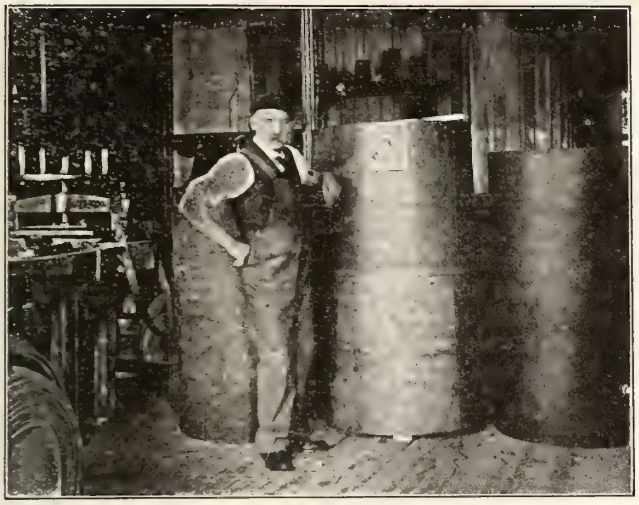
Such a tax is being collected under the Income War Tax Act and the Business Profits War Tax Act with rates higher than those in the United States.

It will be seen that the only new taxes proposed by the Council are the inheritance tax, which already is levied by the provinces, and a Federal land tax, the larger part of which would have to be borne by the agriculturists.

Imperial Oil, Limited, have purchased the plant of the Well Tool & Iron Works, Limited, at Calgary, Alta. It will be used by them for manufacturing and repairing tools and machinery used in their operations in the Canadian West.

A change has been announced in the firm of E. T. Wright & Company, Inc., manufacturers of the "Just Wright" brand of boots and shoes at St. Thomas, Ontario. Henceforth the firm will be known as the Talbot Shoe Company. Officials of the company are E. E. Donovan, president; E. W. Wright, vice-president; and J. A. Sullivan, secretary-treasurer.

Ralph Gilchrist, of Detroit and Alpena, was elected president of the Dominion Sugar Company, Limited, by the directors of the company at a meeting held in Chatham, Ontario, on October 22nd, to succeed the late Henry B. Smith, of Bay City. Mr. Gilchrist is interested in many industrial concerns in Canada and the United States.



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The Pulse of Business in Canada

Banking Statistics

Large Increases Taking Place in Current and Call Loans in Canada and Elsewhere

The position of the chartered banks at the first of September showed heavy increases in current loans, loans to municipalities and call loans, with substantial increases in deposits. The figures were as follows:—

	Aug. 31, 1919	July 31, 1920	Aug. 31, 1920
Deposits on demand ..	$584,300,855	$639,415,625	$640,361,707
Deposits after notice..	1,196,632,931	1,253,170,443	1,261,647,732
Current loans in Canada	1,011,785,424	1,377,276,853	1,385,470,163
Current loans elsewhere	146,964,315	190,914,052	200,945,241
Loans to municipalities	57,536,867	78,792,822	79,912,041
Call loans in Canada..	95,899,836	115,360,894	113,598,923
Call loans elsewhere....	174,176,578	203,045,209	193,888,245
Circulation	223,454,556	240,833,686	237,697,647

Bank Clearings

Returns for September Indicate Dominion-wide Expansion in this Department

An increase of $184,000,764 in bank clearings was recorded for the month of September, this increase being spread pretty generally all over the Dominion. Both Montreal and Toronto reported large gains, while Ottawa was the only city to show any serious decrease. Following are the figures as compiled by the *Monetary Times*:—

	Sept., 1920.	Sept., 1919.		Changes.
Montreal	$556,543,854	$498,925,811	+	$57,618,023
Toronto	414,156,433	358,890,250	—	55,266,183
Winnipeg	245,983,823	218,769,121	—	27,214,702
Vancouver	77,437,078	59,519,366	+	17,917,712
Ottawa	35,473,726	42,194,407	—	6,720,681
Calgary	36,447,175	30,522,676	+	5,924,499
Hamilton	31,836,176	26,588,243	+	5,247,933
Quebec	30,648,095	25,182,030	+	5,466,065
Edmonton	22,715,293	21,543,119	—	1,172,174
Halifax	22,421,025	19,811,960	—	2,609,065
London	14,676,204	13,488,312	—	1,187,892
Regina	18,316,105	19,891,838	—	1,575,733
St. John	13,253,567	13,189,520	—	64,047
Victoria	11,727,457	10,544,780	—	1,182,677
Saskatoon	9,632,660	9,092,260	—	540,400
Moose Jaw	7,723,012	8,070,554	—	347,542
Brantford	6,574,696	4,955,276	—	1,619,420
Brandon	3,182,754	3,337,860	—	155,106
Fort William	3,805,695	3,880,159	—	74,464
Lethbridge	3,927,345	3,451,406	—	475,939
Medicine Hat	2,465,692	1,957,501	—	508,191
New Westminster	3,077,724	2,501,600	—	576,124
Peterboro	4,235,936	3,509,196	—	726,740
Sherbrooke	5,524,034	4,112,790	—	1,411,244
Kitchener	4,720,901	3,974,507	—	746,394
Windsor	15,371,371	9,736,140	—	5,635,231
Prince Albert	1,666,781	1,903,146	—	236,365
Totals	$1,603,544,592	$1,419,543,828	—	$184,000,764
Moncton	3,513,528	.....		.....

Trade Returns

Latest Figures Show Increase in Imports and Decrease in Exports of Domestic Products

An increase in imports and a decrease in exports featured the Department of Customs' summary of Canadian trade for the month of September. Under the heading of imports, the increase applied to all classifications with the exception of animals and animal products. Under exports, the decrease was principally confined to miscellaneous products. With the exception of fibres, textiles and textile products and

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chemical and chemical products, exports of manufactured goods are holding their own satisfactorily. Following are the statistics of trade for September:

Imports Entered for Home Consumption

	1919		1920.	
	Free.	Dutiable.	Free.	Dutiable.
Agricultural and vegetable products, mainly foods	$2,867,853	$10,260,753	$3,268,819	$10,059,877
Agricultural and vegetable products, other than foods.	2,709,511	1,807,681	4,009,546	2,723,142
Animals and animal products	3,866,724	3,196,918	2,160,950	2,798,711
Fibres, textiles and textile products ..	4,798,224	11,696,837	5,652,684	16,352,961
Chemicals and chemical products	921,864	1,533,316	1,963,514	1,982,246
Iron and steel and manufactures thereof	2,814,371	12,940,707	4,821,422	19,966,251
Ores, metals and metal manufactures, other than iron and steel	1,646,677	2,571,594	1,748,847	3,632,325
Non-metallic minerals, and products	6,800,032	5,464,742	7,486,090	13,629,063
Wood, wood products, paper and manufactures	1,714,494	2,214,896	2,517,731	3,203,631
Miscellaneous .-....	2,452,913	3,234,902	3,609,955	3,533,523
Total	$30,583,663	$54,922,349	$37,239,558	$77,882,030
Duty collected .	.....	$14,907,582	.....	$15,507,865

Exports.

	1919.		1920.	
	Domestic.	Foreign.	Domestic.	Foreign.
Agricultural and vegetable products, mainly foods	$19,240,942	$542,093	$20,606,790	$358,434
Agricultural and vegetable products, other than foods..	3,617,166	44,532	2,248,537	31,458
Animals and animal products	27,575,921	174,178	20,387,261	189,781
Fibres, textiles and textile products ..	2,331,756	206,684	863,672	226,349
Chemicals and chemical products ...	2,706,298	72,374	1,956,207	224,304
Iron and steel and manufactures thereof	6,468,865	1,183,596	6,811,264	451,314
Ores, metals and metal manufactures, other than iron and steel....	4,111,239	222,661	4,493,346	96,850
Non-metallic minerals, and products	2,650,528	23,318	3,776,945	88,276
Wood, wood products, paper and manufactures	22,033,621	20,429	36,694,355	45,542
Miscellaneous	14,258,130	635,444	2,551,924	351,787
Total	$104,994,196	$3,124,769	$94,389,685	$2,414,659

Railroad Earnings

Increase for the Month of September in Gross Earnings Was a Large One

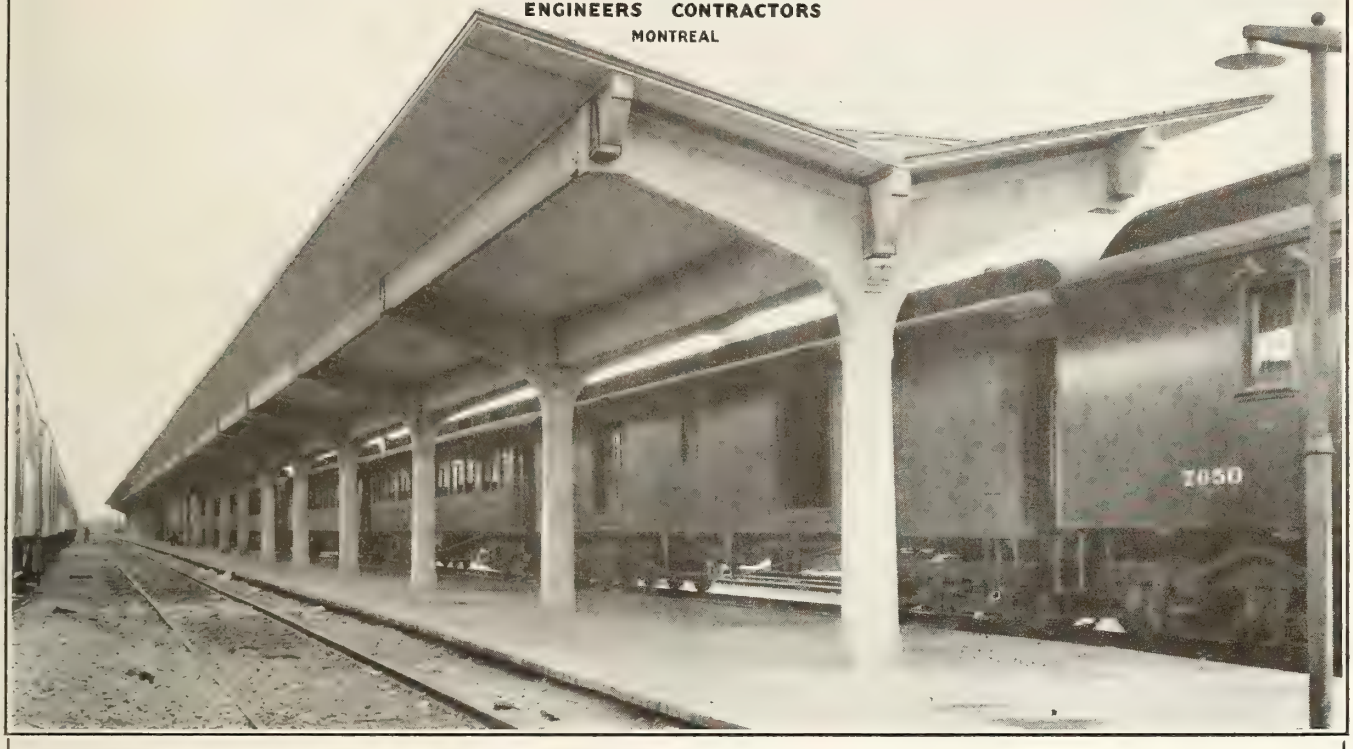
Canadian railroads showed substantial increases in gross earnings for the month of September, indicating a continuance of favorable traffic. The earnings of the principal companies were as follows:—

	1920.	1919.	Increase.
Canadian Pacific	$19,703,000	$17,218,000	$2,485,000
Canadian National	9,955,671	8,804,129	1,121,442
Grand Trunk	11,022,016	9,270,531	1,751,485
Total	$40,680,687	$35,292,660	$5,357,927

The number of failures in Canada during the four weeks ended October 1, 1920, as computed by R. G. Dun & Co., was 68, as compared with 54 for the corresponding period of 1919.

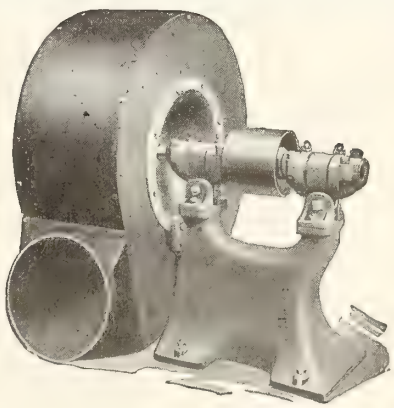


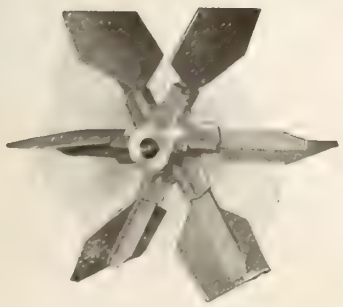
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Fire Losses

September Losses Run Up Third Largest Monthly Total for Year to Date

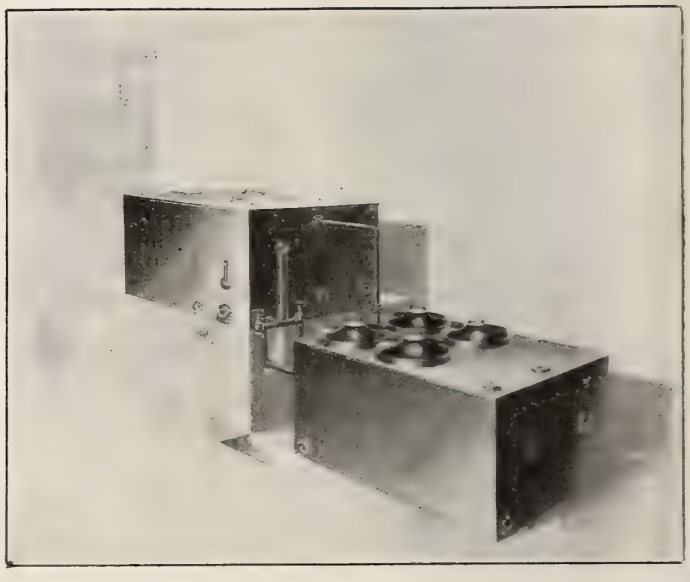
Fire losses, as estimated by the *Monetary Times*, reached a total of $2,480,485 during September. This was the third largest total for any month during the year to date. The record by months for the past four years was as follows:—

Month.	1917.	1918.	1919	192
January	$1,918,660	$2,688,556	$3,917,290	$2,657,859
February	2,009,953	2,243,762	1,091,834	1,895,575
March	2,050,650	1,682,286	2,154,095	1,793,200
April	1,317,714	3,240,187	1,080,070	3,229,500
May	1,163,110	3,570,014	1,785,130	2,001,819
June	1,184,627	3,080,982	3,337,530	1,424,319
July	1,101,734	3,369,684	1,118,377	1,426,856
August	1,230,183	3,110,445	1,374,495	1,857,800
September	1,301,700	917,286	1,940,272	2,480,485
October	704,605	5,119,145	1,023,288	
November	959,049	1,059,580	2,339,870	
December	5,144,100	1,733,917	2,047,496	
Totals	$20,086,085	$31,815,844	$23,207,647	$18,747,398

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A new filtering and sterilizing system for the treatment of cutting oils and similar lubricants has been designed by S. F. Bowser Company, Limited, Toronto, and will shortly be placed on the market. The system is so designed that it can be adapted to prevailing conditions. From the machines and chip separators the oil, either by gravity or special provision, can be delivered to the filter and sterilizer and this automatically removes foreign matter and sterilizes the fluid. After going through a series of compartments, screens, filtering devices, etc., the liquid is delivered to the filter tank, which acts as a temporary storage. From this tank, the oil can be returned to the different machines the same as new oil and used again.



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lines, thus leading to uniformity in the provisions to be made for strength and utility. Begun some years ago by the Canadian Society of Civil Engineers, the work of compilation was continued by the Engineering Institute of Canada and completed by the Canadian Engineering Standards Association. The specifications made, while not in absolute agreement with those of the American Railroad Engineering Association, are yet in substantial agreement therewith. The book is well arranged, very complete in its details and excellently indexed.

Vocational Training

Retraining Canada's Disabled Soldiers. By Walter E. Segsworth, M.E., Formerly Director of Vocational Training, Department of Soldiers' Civil Re-establishment. Ottawa: The King's Printer, 1920.

A good deal has been written about vocational training for returned men, but this is the first time that a complete account has been given of the work as carried out in Canada. Mr. Segsworth, of course, is admirably qualified to deal with the subject by reason of his official connection with the administration of the Department and he enters into details which would not be available to the average writer. Mr. Segsworth was appointed Director of Vocational Training in July, 1917. He held the office for nearly two years, retiring to resume his practice as a mining engineer in March, 1919. It was during his time that the system of training was worked out and placed on an effective basis.

The arrangement of the book follows the logical course, opening with a chapter explaining the principles employed and then giving an account of the history and growth of the work and its present organization. Next, commencing with ward occupation, which marks the beginning of the training, the curative workshops are described; special attention is given to the subject of interviewing the men to determine their natural bent, with an account of the industrial re-training as undertaken in factories. The medical aspects of the case are dealt with and a special chapter is devoted to the care of the blind, while the whole work is summed up in three chapters, giving an array of statistics, costs and results.

The interest of the book is enhanced by the introduction of a number of illustrations, which give a very clear idea of the nature of the training, and there is a brief foreword by Sir James Lougheed, Minister in charge of the Department.

Roof Flashing Handbook

The Barrett Company, Limited, Give Details and Specifications in Newly-Published Catalogue

The Barrett Company, Limited, have just brought out a booklet descriptive of the standard flashings now manufactured by them. The company claim that this new line will satisfactorily fulfil every requirement, whether with brick or concrete construction. Ample provision for contraction and expansion, watertight joints, close adherence to roof or wall, easy and practical installation, adaptability and moderate cost are some of the essential features claimed for them. As all these advantages cannot be guaranteed if the blocks and flashings are improperly installed, architects, contractors and engineers would do well to make a careful study of the specifications contained in the Barrett Company's book. It is very complete in this respect and is well illustrated with blue prints and photographs.



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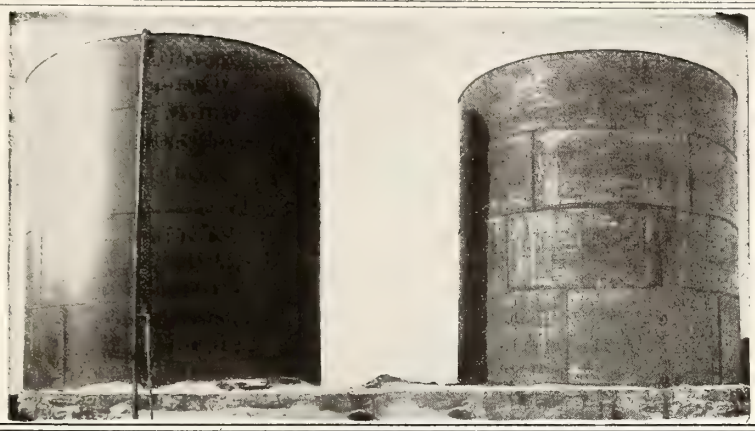


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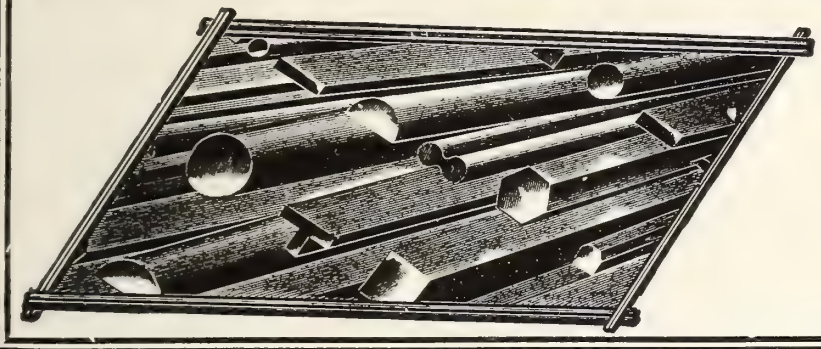


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that jarring, grinding noise in your machine shop caused by the metal gears?

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MONTREAL

Ocean Shipping News

New C. G. M. M. Services

Agreements Formed With Two Other Shipping Companies for Services to India and the Orient

Each month finds the Canadian Government Merchant Marine, Limited, developing some new trade route as new ships are placed in commission, so that in a very short time C.G.M.M. ships will be carrying Canadian commerce in every trade route in the world.

In addition to regular services now operated from Montreal to Great Britain (Liverpool, London, Glasgow, Swansea and Cardiff)—Barbadoes, Trinidad and Demarara—Santiago, Cuba, and Kingston, Jamaica—Brazil and River Platte, and from Vancouver, B.C., to Australia and New Zealand, the following new services have been arranged:

In conjunction with the British India Steam Navigation Company a service has been arranged to India via the Mediterranean and Suez Canal route; S.S. *Boyne* leaving Montreal on October 30th for Karachee, Bombay, Colombo, Madras, Rangoon, Calcutta, Singapore, Batavia, and Soerbaya. S.S. *Canadian Pioneer* inaugurated this service, having sailed from Montreal on September 7th last.

A very important agreement has been reached between the old established Alfred Holt Line and the C.G.M.M. in connection with service from Pacific Coast to the Orient whereby each line will have an equal number of ships in service running alternately. This gives the advantage to the C.G.M.M. of the old established trade relations of the Holt Line in the Orient to develop their trade, while it gives to the Holt Line the advantage of the Canadian National-Grand Trunk Rys. in connection with their service. The C.G.M.M. sailings in connection with this service to China and Japan will probably commence from Vancouver about the end of the year; service to India commencing from Vancouver about the same time. C.G.M.M. sailings in each service will be monthly thereafter.

A new passenger and freight service will also be inaugurated some time early in January from Halifax to Belize, British Honduras, calling at Nassau in the Bahamas, and Kingston, Jamaica. The ships which will be commissioned for this service are now under construction and nearing completion and are being fitted with excellent passenger accommodation for about thirty passengers. All the staterooms being situated on the bridge deck, and being outside rooms, the very best of ventilation will be afforded. The round trip to Belize will make an ideal winter tour occupying about five weeks. This being the only passenger service from a Canadian port to these points should prove of great benefit and be well patronized.

Addition to C.G.M.M. Fleet

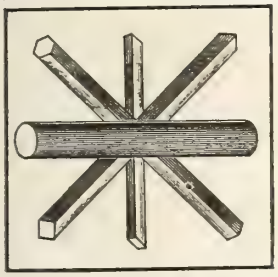
"Canadian Rover" was Launched Last Month by the Collingwood Shipbuilding Co.

On October 19, the new steel steamer *Canadian Rover* was successfully launched at the yards of the Collingwood Shipbuilding Co. The christening ceremony was performed by Mrs. H. B. Smith, wife of H. B. Smith, President of the Shipbuilding Co. She was presented with a suitable souvenir by the company through the manager, J. S. Leitch. The *Canadian Rover* is the seventh steamer built in these yards as part of the Mercantile programme of the Dominion Government. It is of full canal size, and is built to the highest classification of Lloyds. The steamer is well advanced, and will go into use in a few weeks.



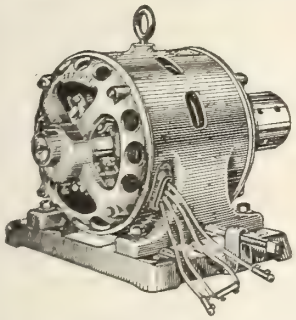
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ROUNDS, SQUARES, HEXAGONS AND FLATS
$\frac{1}{8}$ in. to 6 in. Dia. $\frac{1}{4}$ in. to $2\frac{1}{4}$ in. $\frac{1}{4}$ in. to $2\frac{1}{4}$ in. up to $1\frac{1}{2}$ in. x 3 in.
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Steamship Sailings

Proposed Sailings from Montreal, Halifax, St. John, North Sydney and Vancouver

Subject to Change Without Notice

To Liverpool.

Melita	C.P.O.S. Line	About Nov. 6
*Empress of Britain	C.P.O.S. Line	About Nov. 10
Megantic	White Star-Dom. Line	About Nov. 13
*Victorian	C.P.O.S. Line	About Nov. 20
Metagama	C.P.O.S. Line	About Nov. 20
Minnedosa	C.P.O.S. Line	About Nov. 24

To London.

Scotian	C.P.O.S. Line	About Nov. 5
Venusia	Cunard Line	About Nov. 7
Canadian Rancher	Can. Gov't Mer. Marine	About Nov. 8
Mottisfont	C.P.O.S. Line	About Nov. 12
Canadian Trapper	Can. Gov't Mer. Marine	About Nov. 15
Ariano	C.P.O.S.-Furness Line (Furness)	About Nov. 16

To Glasgow.

Cabotia	Anchor-Donaldson Line	About Nov. 7
Canadian Volunteer	Can. Gov't Mer. Marine	About Nov. 13
Sicilian	C.P.O.S. Line	About Nov. 17
Cassandra	Anchor-Donaldson Line	About Nov. 20
Bothwell	C.P.O.S. Line	About Nov. 23

To Avonmouth Dock (Bristol).

Montezuma	C.P.O.S. Line	About Nov. 10

To Cardiff and Swansea.

Canadian Voyageur	Can. Gov't Mer. Marine	About Nov. 20

To Manchester.

Manchester Brigade	Manchester Liners	About Nov. 7
Manchester Hero	Manchester Liners	About Nov. 14

To Hull.

Maplemore	Furness Line	About Nov. 10

To Leith.

Cairndhu	Thomson Line	About Nov. 15
Scotwell	Thomson Line	About Nov. 23

To Belfast.

Ramore Head	Head Line	About Nov. 8
Melmore Head	Head Line	About Nov. 15

To Dublin.

Ramore Head	Head Line	About Nov. 8

FROM MONTREAL.

To Antwerp.

Mottisfont	C.P.O.S. Line	About Nov. 12
Scandinavian	C.P.O.S. Line	About Nov. 12

To Rotterdam and Hamburg.

Dunaff Head	Head Line	About Nov. 20

To Havre (France).

Scotian	C.P.O.S. Line	About Nov. 5

To South Africa.

Capetown, Port Elizabeth, East London, Durban, Delagoa Bay.

Kwarra	Elder-Dempster Line	About Nov. 15

To Australia and New Zealand—Auckland, Wellington, Melbourne and Sydney.

Trevalgan	New Zealand Shipping Co.	About Nov. 17

To Rio Janeiro and Santos (Brazil), Montevideo and Buenos Aires.

Canadian Seigneur	Can. Gov't Mer. Marine	About Nov. 18

To Montevideo, Buenos Aires and Rosario.

A Steamer	Houston Lines	About Nov. 17

To Barbados, Trinidad and Demerara.

Canadian Farmer	Can. Gov't Mer. Marine	About Nov. 17

To Santiago, Cuba and Kingston (Jamaica).

Canadian Adventurer	Can. Gov't Mer. Marine	About Nov. 17

To St. John's, Newfoundland.

Canadian Sealer	Can. Gov't Mer. Marine	About Nov. 19
Canadian Warrior	Can. Gov't Mer. Marine	About Nov. 20

To India and Far Eastern Ports.

City of Melbourne	Ellerman Buckmalls	About Nov. 15

FROM HALIFAX, N.S.

To St. Pierre Miquelon.

Pro Patria	Nova Scotia S.S. Co	About Nov. 8

FROM ST. JOHN, N.B., AND HALIFAX, N.S.

To Bermuda and British West Indies.

Chaudiere	R.M.S.P. Co.	About Nov. 13

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To St. John's, Newfoundland.

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Branch Factory: St. John's, Newfoundland

FROM VANCOUVER.

Vancouver-Kobe, Yokohama, Moji, Nagasaki (Japan).

Tyndareus	Blue Funnel Line	Early Nov.
Arabia Maru	Osaka Shosen Kaisha	About Nov. 12
Arizona Maru	Osaka Shosen Kaisha	About Nov. 23
*Mattawa	C.P.O.S. Line	About Nov. 25
*Monteagle	C.P.O.S. Line	About Nov. 27
†Empress of Russia	C.P.O.S. Line	About Nov. 28
Teucer	Blue Funnel Line	About late Nov
†Empress of Japan	C.P.O.S. Line	About Dec. 7
Ixion	Blue Funnel Line	About Dec. 15
‡Empress of Asia	C.P.O.S. Line	About Dec. 16
*Methven	C.P.O.S. Line	About Dec. 20

Vancouver-Shanghai, Hongkong (China).

Tyndareus	Blue Funnel Line	Early Nov.
Arabia Maru	Osaka Shosen Kaisha	Nov. 12
Esther Dollar	Canadian Robert Dollar Co.	Middle Nov.
Empress of Russia	C.P.O.S. Line	Nov. 18
Arizona Maru	Osaka Shosen Kaisha	Nov. 23
Mattawa	C.P.O.S. Line	Nov. 25
Monteagle	C.P.O.S. Line	Nov. 27
Teucer	Blue Funnel Line	Late Nov.
Empress of Japan	C.P.O.S. Line	Dec. 6
Empress of Asia	C.P.O.S. Line	Dec. 16
Grace Dollar	Canadian Robert Dollar Co.	Middle Dec.
Bessie Dollar	Canadian Robert Dollar Co.	Middle Dec.
Methven	C.P.O.S. Line	Dec. 20

Vancouver-Manila (Philippine Islands).

Tyndareus	Blue Funnel Line	Early Nov.
Esther Dollar	Canadian Robert Dollar Co.	Middle Nov.
Empress of Russia	C.P.O.S. Line	Nov. 18
Teucer	Blue Funnel Line	Late Nov.
Grace Dollar	Canadian Robert Dollar Co.	Middle Dec.
Bessie Dollar	Canadian Robert Dollar Co.	Middle Dec.
Empress of Asia	C.P.O.S. Line	Dec. 16

Vancouver-Singapore (Strait Settlements).

Tyndareus	Blue Funnel Line	Early Nov.
Esther Dollar	Canadian Robert Dollar Co.	Middle Nov.
Esther Dollar	Canadian Robert Dollar Co.	Middle Nov.
§Canadian Inventor	Can. Gov't Mer. Marine	Middle Nov.
Mattawa	C.P.O.S. Line	Nov. 25
Teucer	Blue Funnel Line	Late Nov.
Bessie Dollar	Canadian Robert Dollar Co.	Middle Dec.
Grace Dollar	Canadian Robert Dollar Co.	Middle Dec.
Methven	C.P.O.S. Line	Dec. 20

Vancouver-Honolulu and Suva.

Niagara	Canadian Australian Line	Nov. 11
Tahiti	Canadian Australian Line	Dec. 8

Vancouver-Australian and New Zealand Ports.

Canadian Winner	Can. Gov't Mer. Marine	About Nov. 10
Waihemo	Can. Australian Line	About Early Nov.
Niagara	Can. Australian Line	About Nov. 11
Canadian Prospector	Can. Gov't Mer. Marine	About Middle Nov.
Canadian Highlander	Can. Gov't Mer. Marine	About Late Nov.
Waitemata	Can. Australian Line	About Late Nov.
Tahiti	Can. Australian Line	About Dec. 8
Canadian Exporter	Can. Gov't Mer. Marine	About late Dec.
Canadian Inventor	Can. Gov't Mer. Marine	About Nov. 30

Through bills of lading will be issued to all principal ports; also inland points beyond Oriental and Australasian ports of call.

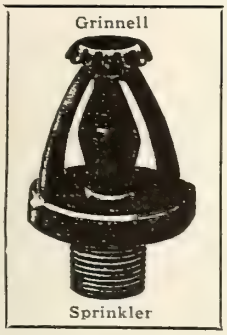
‡ Do not call Moji.
† Do not call at Shanghai.
§ Will go through to Calcutta.
* Do not call Nagasaki.

Commercial Intelligence Service

Several Changes Announced in the Personnel of the Trade Commissioners

A number of changes have occurred recently in the Trade Commissioner Service of the Dominion. J. Vernon Mackenzie has resigned as Trade Commissioner in Glasgow and has returned to Canada to become the editor of *Maclean's* Magazine. He has been succeeded at Glasgow by Major G. B. Johnson, who has been Trade Commissioner in Brazil. The Brazilian position goes to Major E. L. McColl, who has been taking a course of training in the Department at Ottawa as Junior Trade Commissioner.

W. McL. Clarke, Canadian Trade Commissioner, Milan, Italy, is at present visiting Canada. He is now preparing reports on those countries have been published in the Weekly membered that Mr. Clarke visited Spain and Greece, and his report on those countries have been published in the Weekly Bulletin of the Department.



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of your insurance premiums and eliminate all fire worries by having us protect your factory and its output with an

Automatic Sprinkler System

Your savings in insurance premiums buy the complete system on our participating plan.

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Heating and Power Plants

Designed, installed or remodelled to reduce your maintenance cost to a minimum.

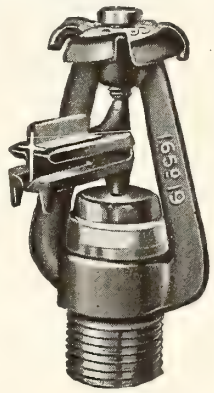
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Engineers and Contractors
63 ALBERT ST. TORONTO, CAN.

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Burnt Out

That has been the fate of many a man who has failed to safeguard his property against fire. Put the fear of fire out of your head by installing



Manufacturers' Automatic Sprinklers

They stand on guard night and day. The water starts when the fire starts —automatically. Write us for particulars.

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PRODUCED IN CANADA

BY

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TRAIL - British Columbia

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CHEMICAL, CORRODING AND COMMON PIG LEAD
HIGH GRADE, BRASS SPECIAL AND PRIME WESTERN ZINC (Spelter)

Ontario Sales Office: C.P.R. Building, Toronto
General Sales Office: Drummond Building, Montreal

Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

DOMESTIC.

555. Sales Agency: A firm has been organized in the Maritime Provinces to carry on a general forwarding business to take care of the import and export business moving from the Eastern ports, and also to maintain a sales force covering the trade in the Maritime Provinces. This firm is anxious to get in touch with Canadian manufacturers who wish to avail themselves of the above services.

FOREIGN.

556. Agency: A gentleman who has travelled in Europe and South America as a salesman and who furnishes excellent references, would like to get in touch with manufacturers who wish to extend their foreign trade connections.
557. California: A firm of manufacturers' agents in California is anxious to represent Canadian manufacturers of grocery lines.
558. Glasgow: The manager of an old established firm in Glasgow who has recently been a delegate to the Congress of the Chambers of Commerce in Toronto desires to make connections with manufacturers who can export the following goods: canned goods, steel bars, milk cans, and cottons.
559. New Zealand: A representative of a reliable firm of machinery merchants and agents in Auckland is visiting Canada and would like to secure agencies for the following: belting, autos, marine engines, steel bars, angles, etc.
560. California: A firm in Los Angeles wishes to get in touch with Canadian manufacturers who might be interested in export to the Pacific Coast.
561. Malta: We have an enquiry from an agent in Malta who would like samples of flour from Manitoba wheat.
562. Packing House Products: A reliable firm of commission agents with head office in Trinidad and branches in British Guiana and Barbados desire to secure representation for packing house products. Territory includes French islands.
563. Chair Seats: Large furniture manufacturer near Dublin would like to hear from Canadian manufacturers as to position to supply three-ply perforated embossed or leather or papier mache chair seats. This firm is ready to buy in very large quantities.
564. Furniture Makers' Requisites: A Cape Town firm of importers request catalogues and price lists on all requisites for the furniture manufacturing trade. Quotations also requested on three-ply and other woods for the furniture trade.
565. Cottons: A firm of manufacturers' representatives with head office at Trinidad and branches at British Guiana and Barbardos would like to get a Canadian agency for cottons.
566. Neckwear: A firm of commission agents with offices at Trinidad, British Guiana and Barbados, wish to obtain a Canadian agency for neckwear. Firm are in good standing and cover the smaller islands from Barbados.
567. Hosiery and Underwear: A firm of commission agents with branch offices in British Guiana and Barbados (head office at Trinidad) desire to secure a Canadian agency for hosiery and underwear.
568. Haberdashery: An English firm of general merchants and agents would like to do business with Canada in general haberdashery lines.
569. Bedsteads: A firm of commission agents in Barbardos who are deeply interested in Canadian agencies wish to add to their list an agency for bedsteads.
570. Brushes: A firm of Scotch importers desire to get in touch with Canadian manufacturers of brushes of all kinds.
571. Washboards: Importers in Edinburgh are requested to get into touch with manufacturers of washboards.
572. Blue Flame Stoves: A firm of reliable agents in Barbados having other Canadian connections would like to obtain an agency for blue flame stoves.
573. Builders' Specialties: A Cape Town firm stocking builders' specialties of all kinds, request correspondence, catalogues and price lists from Canadian firms manufacturing for export.
574. Hardware: A firm of manufacturers' agents with head office at Trinidad and newly established branch at Barbados, wish to get in touch with a firm supplying ironmongery, hardware, nails, etc. Firm covers West Indies
575. Wire Nails: A firm of manufacturers' representatives in Barbados wish to secure a Canadian agency for wire nails.
576. Refrigerators: A firm of commission agents in good standing wish to obtain an agency for refrigerators suitable for small households. Territory: Barbados, Trinidad and Demerara.
577. Woodenware, Hardware, Paper, etc.: Newly-formed trading corporation in south of Ireland is interested in hearing from Canadian manufacturers who desire direct representation in the following lines, particularly: woodenware, timber, enamelware, flour, grains, basic slag, rubber, canned goods, iron and steel products, kraft paper and newsprint, parchment, cardboard, and agricultural machinery.

THE
New Zealand Shipping Company Limited
CANADA
TO
Australia and New Zealand

Regular monthly sailings from Montreal in summer and St. John in winter, calling at Auckland, Wellington, Lyttelton and Dunedin (New Zealand) and Melbourne and Sydney (Australia). Sailings 20th of each month.

Through bills of lading issued to all points in Australia, New Zealand, Tasmania and other islands of Oceania.

Marine Insurance effected at rates equal to those given from New York.

For rates and other information apply to

The New Zealand Shipping Co.
LIMITED
213 Board of Trade Building, Montreal

Canadian Hart Wheels
CUT FASTER LAST LONGER
than any other wheels on the market

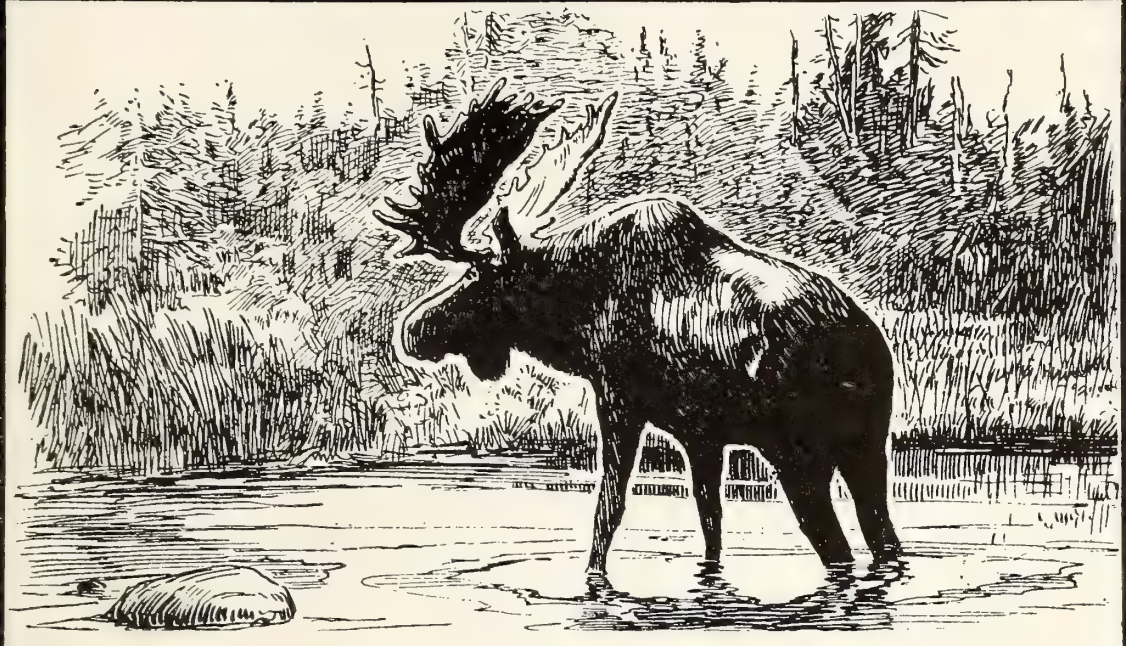


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Send for one of our catalogues and tell us your troubles. We do the rest.

CANADIAN HART PRODUCTS LIMITED
HAMILTON - - ONTARIO



The Call *of* The Open

WHEN the days begin to have that unmistakable fall "tang"—when you shiver more than a trifle if you leave your coat home nights—when the leaves are turning brown quicker than you can watch them—right then you feel that impulse to climb into that old khaki suit, to pull on those old knee boots, and to fondle that fine little old rifle—

AND to get up north where the big fellows are—moose, deer, caribou and bear, at your choice according to locality. Why not? The backwoods of Ontario are calling you to a real fall hunte holiday.

AND it's so simple to get there. The Canadian Pacific takes you to all the best hunting country in Ontario. Ask any Canadian Pacific agent, or

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NEW ZEALAND AUSTRALIA

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Largest, Newest and Best-Equipped Steamers to the SOUTH SEAS

FLEET

Passenger and Mail Steamers

R.M.S. "NIAGARA" (20,000 tons)
R.M.S. "MAKURA" (13,500 tons)

Freight Steamers

S.S. "WAIRUNA" (8,900 tons)
S.S. "WAIKAWA" (9,000 tons)
S.S. "WAIHEMO" (8,900 tons)
S.S. "WAITEMATA" (10,000 tons)
S.S. "WAIMARINO" (7,500 tons)

For Fares and Sailings apply to all Agents Canadian Pacific Railway and other Railway and Steamship Agents, or to Canadian-Australasian Royal Mail Line, 440 Seymour St., Vancouver, B.C.

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EXPORT **M.P.&B.** IMPORT

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Freight handled to or from any part of the World.

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STEAMER **SPACE** ENGAGED

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Customs Entries promptly passed.

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Morison, Pollexfen & Blair

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Telephone Main 2521

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Telephone Main 6559

Cable Address "HEADSHIP" for all offices

Deaths Among Prominent Manufacturers

Francis H. Whitton

Vice-President and General Manager of the Steel Co. of Canada, Passes Away

A valued member of the Executive Council of the Association passed away on October 24th in the person of Francis H. Whitton, vice-president and general manager of the Steel Co. of Canada, Limited, Hamilton. Mr. Whitton was born in England 61 years ago, and came to Canada as a young man. For many years he was associated with J. Orr Callaghan in the Ontario Tack Co. When this company was taken over by the Steel Co. of Canada, Mr. Whitton's fine organizing ability was recognized and he rose rapidly to the position he occupied at the time of his death.

Erskine Henry Bronson

Pioneer Lumberman and Parliamentarian Dies in Ottawa After Long Illness

Hon. Erskine Henry Bronson, a pioneer lumberman and one of Ottawa's leading citizens, died early on the morning of October 19th, at the age of 76. Mr. Bronson's death followed an illness of eighteen months' duration resulting from a stroke of paralysis which he suffered while spending a holiday in California last year.

Hon. Mr. Bronson, says the *Ottawa Evening Journal*, took a deep interest in everything pertaining to the welfare and development of the Capital. He was always deeply interested in educational and civic affairs, and lent his time and recognized ability to the Public School Board and City Council for nearly a score of years. His loss will be sincerely mourned by a wide circle in business, civic, church and university circles.

He was president of the Bronson Co., Water Powers and Manufacturers of Ground Wood Pulp, 150 Middle Street, also president of the Ottawa Improvement Co., vice-president of the Ottawa Light, Heat and Power Co., president of the Ottawa Power Co., and director of the Ottawa Electric Co.

Mr. Bronson was born in Bolton, Warren Co., New York, on September 12, 1844, the son of the late Henry Franklin and Editha (Pierce) Bronson. He received his education at the Grammar School, Ottawa, and Hudson's Falls, New York. When a youth he joined the Bronson and Weston Lumber Co., and acquired an interest in that company in 1867. On the death of his father he succeeded him as president of the Bronson and Weston Lumber Co. in 1889.

He was one of the founders of the Ottawa Electric Company, and was elected a member of the Ontario Legislature for Ottawa, holding office from 1886 to 1898. He joined the Mowat Government as Minister without portfolio on Sept. 10, 1890, and held a similar position in the Hardy Government.

In 1882 he contested County of Carleton in Liberal interest. Just prior to nomination day his opponents considered it necessary to withdraw their candidate and run the Premier—Sir John A. Macdonald—against him. In spite of this fact he saved his deposit, which was a notable achievement in this constituency.

"He stands for all that is desirable and attractive in the public man," was the eulogy of the Ottawa press.

In 1874, he married Ella H. Webster, daughter of the late Prof. N. B. Webster, of Norfolk, Va.

Ship "National!"

THE ships and rails of the "National" services offer Canadians a splendid opportunity for the expansion of business in the Dominion and beyond its boundaries to all the ports of the Seven Seas.

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He is survived by his wife, one son, Mr. Fred Bronson, and one daughter, Mrs. R. A. A. Johnston, both of Ottawa; two brothers, Mr. W. J. and Mr. F. P. Bronson; a sister, Mrs. Levi Crannell, also four grandchildren, Erskine B. Johnston, Robert B. Johnston, Edith Johnston and Genevieve Bronson, all of Ottawa.

Thomas Long

Founder of the Northern Navigation Company Dies at His Home in Toronto

The death occurred in Toronto on Sunday, October 11th, of Thomas Long, founder of the Northern Navigation Company and president for many years of it and of the Collingwood Shipbuilding Company, Limited. He was also a director of several other organizations, including the Merchants' Bank, the Toronto General Trusts Corporation, the London & Canadian Loan & Agency Company, the Excelsior Life Company, and the Consumers' Gas Company of Toronto.

Mr. Long was a Conservative in politics and represented North Simcoe in the Legislative Assembly of Ontario from 1875 to 1883. His services on behalf of the Church of Rome were rewarded by the Pope, who conferred on him knighthood in the Order of St. Gregory the Great. Besides his widow, a son, T. P. Long of Collingwood and two daughters, Mrs. Howard Wheeler of St. Paul, Minn., and Mrs. D'Arcy McGee of Ottawa, survive.

Charles Ernest Warwick

Secretary-Treasurer of Warwick Bros. & Rutter Dies in Toronto, Aged Fifty-four Years

Charles Ernest Warwick, secretary-treasurer of the firm of Warwick Bros. & Rutter, died at his home, 428 Walmer Road, Toronto, on October 14th, after an illness of about two years.

Mr. Warwick had been associated with the large stationery and publishing business with which his name was identified for over a quarter of a century, growing up with it from early manhood. Born in Woodstock, Ont., fifty-four years ago, he came to Toronto when a lad and received his education at Upper Canada College.

He took a great interest in Zetland Lodge, A.F. and A.M., was a member of the National Club and the Ontario Jockey Club, and a Conservative in politics. In religion he was an Anglican and a member of Grace Church-on-the-Hill.

He is survived by Mrs. Warwick, three sons, W., W. M. and S. M., and one daughter, Miss Helen.

Welding Locomotive Fireboxes

L'Air Liquide Society Issue Booklet of Information on Oxy-Acetylene Process

L'Air Liquide Society, manufacturers of oxygen acetylene, welding and cutting apparatus, etc., whose head office is at West Toronto, have just issued a booklet entitled "Welding Locomotive Fireboxes by the Oxy-Acetylene Process," which is intended to supply a long felt want. The information contained in it is gathered from the experiences of George L. Walker and R. T. Peabody, of the Air Production Engineering Service Department, New York, both of whom are experts on their subject.

The facts given are of a purely practical nature and are intended to serve those persons who use the oxy-acetylene process for welding locomotive fireboxes, or for similar work. The company state that they have a limited supply of these booklets on hand, and, on request, will be pleased to send a copy to any reader of INDUSTRIAL CANADA to whom it would be of benefit and practical interest.

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Department of Labour

ONTARIO GOVERNMENT

Parliament Buildings
Toronto

INVESTIGATION AND RESEARCH

The Department is the Provincial centre for investigation and research in matters connected with labour. Pamphlets on vocational opportunities for boys and girls in the industries of the Province are being prepared.

Already issued—

Bulletin No. 1. General Introduction.
" No. 2. Department and Notion Stores.
" No. 3. Dressmaking and Millinery.
" No. 4. Garment Making.

Also—

Mothers' Allowances Report.
Labour Legislation of Ontario—A Survey.

1. The Stationary and Hoisting Engineers' Act.
2. The Factory, Shop and Office Building Act.
3. The Steam Boiler Act.
4. The Building Trades Protection Act.
5. The Employment Agencies Act.
6. The Bureau of Labour Act.

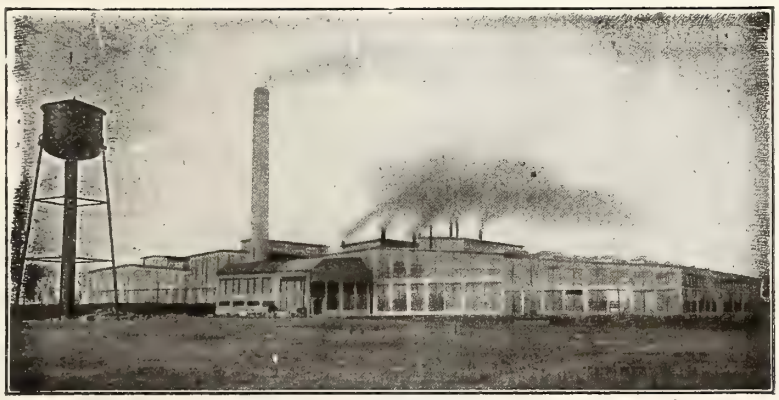
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If not mentioned here, it is probably an "Etc."

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Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. Rates for insertion in this department, $4.00 per heading per year (12 insertions).

ABRASIVES
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.
*Norton Company of Canada, Ltd., Hamilton, Ont.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited. Montreal.

ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto. Ont.

ACID PROOF COATINGS
Beveridge Paper Co., Ltd., Montreal, Supply Department.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.

AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Sherbrooke, Que.
*Smart-Turner Machine Co., Ltd., Hamilton. Ont.

AIR LIFT PUMPS
*Canadian Ingersoll-Rand Co., Sherbrooke, Que.

ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.

ALKALIES
Brunner, Mond Canada, Limited, Amherstburg, Ont.

ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,

ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.

ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.

ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

ARSENIC
*Deloro Smelting & Refining Co., Limited. Deloro, Ont.

ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.

ASBESTOS
Atlas Asbestos Company, Limited Montreal, Que.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEET AND PISTON PACKINGS
Atlas Asbestos Company, Limited, Montreal, Que.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS STEAM PIPE AND BOILER COVERINGS
Atlas Asbestos Company, Limited, Montreal, Que.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS TEXTILES
Atlas Asbestos Company, Limited, Montreal, Que.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

AUTOMOBILE ACCESSORIES
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.

AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.

AXLES
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Flashlight
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Storage
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BEARINGS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING CHAINS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*McArthur Beltings, Limited, Brockville, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha and Rubber Ltd., Toronto, Ont.

BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont,

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
*Canadian Salt Co., Ltd., Windsor, Ont.

BLOWERS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

BOARDS, paper, fibre, press
Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

BOILER COMPOUND
Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.

BOILER GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

BOILER LININGS AND COVERINGS
Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILERS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co., Ltd., Guelph
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, hot water or steam
Warden King, Ltd., Montreal.

BOILERS, steam
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd,, Brantford, Ont.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

BOOKBINDERS
*The Brown Bros., Ltd., Toronto.

BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

BOXES, cellular and fibre board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.

BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,

BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.

BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.

BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS ENGRAVERS
Pritchard. Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS PLATES
*Tallman Brass & Metal Co., Hamilton, Ont.

*For Display Advertisement see Index, Page 53

BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd,, New Toronto.

BRASS SHEETS AND PLATES
*Copper Products, Ltd., Montreal, Que.

BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Copper Products, Ltd., Montreal, Que.

BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS WORK, special
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BRICK
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.

BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.

BRIDGES, Railway and Highway
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd,, Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.

BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.

BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.
*Copper Products, Ltd., Montreal, Que.

BRONZE TUBING, seamless
*Copper Products, Ltd., Montreal, Que.

BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.

BRUSHES, carbon
*Canadian National Carbon Co., Ltd., Toronto.

BUCKET TANKS
*MacKinnon Steel Co., Ltd,, Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.

BUILDING FELT AND PAPER
Beveridge Paper Co., Ltd., Montreal.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
*The Barrett Co., Ltd., Toronto and Montreal.

BUNGS, wooden for barrels
Wm. H. White, Ville St. Pierre, Montreal, Que.

BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.

BURLAPS, decorative
Dominion Oil Cloth and Linoleum Co., Limited, Montreal, Que.

CABLES, electric light, power, telephone and telegraph
*Northern Electric Company, Limited, Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd,, Hamilton, Ont.

CABLES, transmission and telephones
*Northern Electric Company, Limited, Montreal, Que.

CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.

CABLES, wire
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.

CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.

CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.

CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.

CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.

CARBIDE
*Canada Carbide Co., Ltd., Montreal, Que.

CARBONS, electric
*Canadian National Carbon Co., Ltd., Toronto, Ont.

CARBONIC ACID GAS
*Canadian Carbonate Co., Montreal.

CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.

CARPET FELTS, plain and corrugated
Beveridge Paper Co., Ltd., Montreal, Supply Department.

CARRIERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.

CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARS
*National Steel Car Co., Ltd., Hamilton, Ont.

CARS, industrial
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

CARTONS, lithographed
Consolidated Lithographing and Mfg. Co., Ltd., Montreal, Que.
Harris Lithographing Co., Ltd., Toronto, Ont.

CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

CASTINGS, aluminum, brass and bronze
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CASTINGS, malleable iron
*Galt Malleable Iron Co., Ltd., Galt, Ont.

CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.

CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.

CAUSTIC SODA
*Canadian Salt Co., Ltd., Windsor.

CEMENTS, High Temp.; plastic, liquid
Beveridge Paper Co., Ltd., Montreal, Supply Department.

CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Company, Ltd., Toronto, Ont.

CHAIRS
*Office Specialty Mfg. Co., Ltd. Newmarket. Ont.

CHAIRS; Folding and Assembly Seating
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Strat ford, Ont.

CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*The Grasselli Chemical Co., Ltd., Toronto, Ont.
*The Nichols Chemical Co., Ltd., Montreal, Que.

CHEMISTS, industrial
*Milton Hersey Co., Montreal.

CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd., Toronto, Ont.

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

CLAM SHELL BUCKETS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CLOCKS, time
*International Business Machines Co., Ltd., Toronto.

CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto, Ont.

CLOSET SEATS
*Goderich Organ Co., Goderich,Ont.

CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.

CLOTHING, leather and sheepskin lined coats
*A R. Clarke & Co., Ltd., Toronto.

CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co Ltd., Orillia, Ont.

CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.

COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.

COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

COFFEE
S. H. Ewing & Sons, Montreal.

COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co.. Ltd., Hamilton, Ont.

COLD STORAGE DOORS
*John Hillock & Co., Ltd., Toronto.

COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COLLARS. Composition
Parsons & Parsons Canadian Co., Hamilton, Ont.

COLORS
*A. Ramsay & Son Co., Montreal.

COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.

CONCRETE COATINGS, PAINTS, Etc.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

CONCRETE HARDENER AND WATERPROOFER
Beveridge Paper Co., Ltd., Montreal, Supply Department.
Sturgeons Limited, Toronto.

CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd., Toronto, Ont.

CONDENSERS, Barometic
*Canadian Ingersoll-Rand Co., Sherbrooke, Que.

CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.

CONTAINER BOARD—strong container
*Bathurst Lumber Co., Ltd.. Bathurst, N.B.

CONTRACTOR'S PLANT
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CONVEYORS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Toronto.

COPPER
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.

COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Copper Products, Ltd., Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

COPPER TUBING, seamless
*Copper Products, Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

*For Display Advertisement see Index, Page 53

CORKS
S. H Ewing & Sons, Montreal, Que

CORK CARPET
Dominion Oil Cloth and Linoleum Co., Ltd., Montreal, Que.

CORRUGATED PAPER BOXES
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

CORSETS
Dominion Corset Co., Quebec, Que.

COTTONS
*Montreal Cottons, Ltd., Valleyfield, P.Q.

COTTONADES
Hamilton Cotton Co., Hamilton, Ont.

COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.

CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.

CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.

CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.

CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.

CRUSHERS, Rock and Ore
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

CUPOLAS
*Northern Crane Works, Ltd., Walkerville, Ont.

CUPS, presentation
Standard Silver Co., Toronto, Ont.

CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.

CUTLERY
Standard Silver Co., Toronto, Ont.

CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.

DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.

DENIMS
Hamilton Cotton Co., Hamilton, Ont.

DERAILS
Canadian Hart Wheels, Ltd., Hamilton, Ont.

DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.

DESKS
Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.

DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.

DIES
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.

DISINFECTING APPARATUS
Spramotor Co., London, Ont.

DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.

DREDGES
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRILL SHARPENERS
Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

DRILLS
John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas, Ont.

DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.

DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

DRY COLORS
*The Imperial Varnish & Color Co., Ltd., Toronto.

DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.

DURABLE WIRE ROPE
*The Dominion Wire Rope Co., Ltd., Montreal, Que.

DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.

DYNAMOS
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.

DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.

EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont

ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.

ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.

ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.

ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.

ELECTRODES, carbon
*Canadian National Carbon Co., Ltd., Toronto, Ont.

ELECTROTYPING
Central Press Agency, Ltd., Toronto.

ELECTRICAL SUPPLIES
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.

ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont.

ELEVATING MACHINERY
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.

ELEVATORS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co., Ltd,, Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.

ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto.
Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.

EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

ENAMELS
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

ENAMEL AND TIN WARE
*McClary Mfg. Co., London, Ont.

ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & R. Weir, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
*Massey-Harris Co., Ltd., Toronto

ENGINES, gasoline, tractor, plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.

ENGINES, hoisting
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*The Waterous Engine Works Co. Ltd., Brantford, Ont.

ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.

ENGINES, steam plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.

ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.

ENGRAVERS, half-tone
Grip, Ltd., Toronto.

ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.

ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont,

ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.

ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.

ENVELOPES
*Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.

EXPERTS IN PATENT CAUSES
*Ridout & Maybee, Toronto, Ont.

EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.

FACE PLATE JAWS
*Ker & Goodwin, Brantford, Ont.

FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.

FANS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

FARM POWER & LIGHT PLANTS
*Northern Electric Company, Limited, Montreal, Que.

FENCING, wire
*C. H. Johnson & Sons, Ltd., Montreal, Que.

FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
Beveridge Paper Co., Ltd., Montreal, Que.

FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Frost Steel & Wire Company, Limited, Hamilton, Ontario.

FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.

FIBRE, Vulcanized
Beveridge Paper Co., Ltd., Montreal, Supply Department.

FIBRE (vulcanized), sheets, rods, tubes, etc.
The Diamond State Fibre Co. of Canada, Ltd., Toronto

FIBREBRICK, Plastic, jointless
Beveridge Paper Co., Ltd., Montreal, Supply Department.

FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.
The Ingersoll File Company, Ltd., Ingersoll, Ont.

FILING CABINETS
*Office Specialty Co., Newmarket, Ont.

FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.

FILMS, MOTION PICTURE
*Canadian Aero Film Company, Limited, Toronto.

FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.

FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask

FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.

FIRE BRICK, PLASTIC
Beveridge Paper Co., Ltd., Montreal, Que.

FIRE DOOR HARDWARE
*Richard Wilcox Canadian Co., Ltd., London, Ont.

FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.

FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.

FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE-PROOF WINDOWS AND DOORS
*Canadian Metal Window & Steel Products, Limited, Toronto.
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.

FIRE PROTECTION SYSTEMS
*Canadian Des Moines Steel Co., Limited, Chatham.

FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont.

FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.

FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.

FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.

FITTINGS, steam
Warden King Ltd., Montreal, Que.

* For Display Advertisement see Index, Page 53

FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FORGINGS
*Canada Foundries & Forgings Co., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
FORGINGS, drop
*Dominion Forge & Stamping Co., Walkerville, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.
FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FURNACES
*McClary Mfg. Co., London, Ont.
FURNITURE; Camp and Verandah and Novelties
The Stratford Mfg. Co., Limited, Stratford, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
*The Goold Shapley & Muir Co., Limited, Brantford, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
*S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GEARS, cut
*Hamilton Gear and Machine, Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GILDING METAL
*Copper Products, Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.
GLUE
Canada Glue Co., Ltd., Brantford, Ont.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.
GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.
GRAPHITE, lubricating
Black Donald Graphite Company, Limited, Calabogie, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
Beveridge Paper Co., Ltd., Montreal, Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDING MACHINERY
*Ford Smith Machine Co., Ltd., Hamilton, Ont.
*Norton Company of Canada, Ltd., Hamilton, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*Norton Company of Canada, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GYPSUM PRODUCTS
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
*The Dominion Wire Rope Co. Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATERS, WATER FEED
*Mason Regulator & Engineering Co., Ltd., Montreal, Que.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOSE, fire and rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOUSES, factory made
Wm. H. White, Ville St. Pierre, Montreal, Que.
HYDRAULIC TURBINES
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
*The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
Beveridge Paper Co., Ltd., Montreal, Supply Department.
INSULATION VULCANIZED FIBRE
*The Diamond State Fibre Co. of Canada, Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
*Caron Bros., Montreal, Que.
JEWELRY, gold-filled
*Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Consolidated Lithographing and Mfg. Co., Ltd., Montreal, Que.
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
*Ker & Goodwin, Brantford, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto.
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.

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LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que
LEATHER GOODS, Fine
Federated Leather Goods Co., Ltd., Montreal, Que.
LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LINK-BELT, Ewart and saw mill riveted
*Canadian Link-Belt Co., Toronto.
LINK BELTING
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
LINOLEUM
Dominion Oil Cloth and Linoleum Co., Ltd., Montreal, Que.
LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Consolidated Lithographing and Mfg. Co., Ltd., Montreal, Que.
Harris Lithographing Co., Ltd., Toronto, Ont.
The Federated Press, Limited, Montreal, Que.
LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto. Ont.
LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.
LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.
LOOSE LEAF SYSTEMS
Copeland-Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.
LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
LUMBER
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.
LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
LUMBER, spruce and pine, cedar railway ties and shingles
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.
LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.
LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.
MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY, Conveying
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.
MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
J. & R. Weir, Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, pulp mill
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Dominion Engineering Works, Limited, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, roadmaking
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
MACHINERY, transmission
*Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINES, painting
Spramotor Co., London, Ont.
MAGNESITE
*Canadian Carbonate Co., Montreal. Que.
MALLEABLE IRON CASTINGS
*Galt Malleable Iron Co., Ltd., Galt, Ont.
MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.
MECHANICAL STOKERS
*Under-feed Stoker Co. of Canada, Ltd., Toronto.
METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.
METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL LATH
*The Pedlar People, Ltd., Oshawa, Ont.
METAL PACKING
*Garlock Packing Co., Hamilton, Ont.
METAL, spinning and stamping
*The Booth Coulter Copper & Brass Co., Ltd., Toronto, Ont.
METAL PROTECTIVE PAINTS
Sturgeons Limited, Toronto.
METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
MILLING CUTTERS
*Pratt & Whitney Co. of Canada, Dundas, Ont.
MILLING MACHINES
*Ford Smith Machine Co., Ltd., Hamilton, Ont.
MILL RIVITED
*Canadian Link-Belt Company, Ltd., Toronto, Ont.
MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
*A. R. Clarke & Co., Ltd., Toronto.
MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.
MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.
MONEL METAL
*International Nickel Co. of Canada, Ltd., Toronto.
MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MOTION PICTURES
*Canadian Aero Film Company, Limited, Toronto.
Pathescope of Canada, Limited, Toronto.
MOTOR CARS
*Ford Co. of Canada, Ford, Ont.
MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.
MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.
MOTORS, electric (repairing)
*T. & H. Electric Co., Hamilton.
MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAILS, wire
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.
NICKEL CASTINGS
*International Nickel Co. of Canada, Ltd., Toronto.
NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
*International Nickel Co. of Canada, Ltd., Toronto.
NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St Catharines, Ont.
*International Nickel Co. of Canada, Ltd., Toronto.
NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.
OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.
OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.
OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
OILS
*A. Ramsay & Son Co., Montreal, Que.
OIL FILTRATION AND CIRCULATING SYSTEMS
*S. F. Bowser & Co., Toronto, Ont.
OIL STORAGE SYSTEMS, self-measuring
*S. F. Bowser & Co., Toronto, Ont.
OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.
OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*The Imperial Oil Co., Toronto.
OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OILCLOTHS, floor and table
Dominion Oil Cloth and Linoleum Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
ORGANS, reed
Bell Piano & Organ Co., Ltd., Guelph. Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto.
OXYGEN
*L'Air Liquide Society, Montreal. Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
*Jenkins Bros., Ltd., Montreal, Que.
PAD HOOKS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.

*For Display Advertisement see Index, Page 53

PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
*A Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PAINTS, preservative
Beveridge Paper Co., Ltd., Montreal, Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.
PAPER, bags, all kinds
Beveridge Paper Co., Ltd., Montreal.
PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.
PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, building
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PARCHMENT PAPER, for wet packing
Beveridge Paper Co., Ltd., Montreal.
PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
PATENTS
Fetherstonhaugh & Co., Toronto.
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.
PATENT LITIGATION
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.
PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.
PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.
PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto

PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.
PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
PHOTO PLAYS
*Canadian Aero Film Company, Limited, Toronto.
PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.
PIANO KEYS
The Otto Higel Co., Ltd., Toronto.
PIANO, player actions
The Otto Higel Co., Ltd., Toronto.
PIANOS AND PLAYER PIANOS
Bell Piano & Organ Co., Ltd., Guelph, Ont.
PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.
PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*M. A. Hanna & Co., Toronto.
*Algoma Steel Corporation.
PINS, society, emblems and badges
*Caron Bros., Montreal, Que.
PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.
PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.
PIPES, culvert
*The Pedlar People, Ltd., Oshawa, Ont.
PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.
PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
PLANING MILLS
G. & J. Esplen, Montreal, Que.
PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
PLOWS
J. Fleury's Sons, Aurora, Ont.
PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
POLISHING MACHINERY
*Ford Smith Machine Co., Ltd., Hamilton, Ont.
PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.
POWER PRESSES
*Hydraulic Machinery Co., Ltd., Montreal, Que.
PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.

PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.
The Federated Press, Limited, Montreal, Que.
PULLEYS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.
PULP, bleached sulphite
*Riordan Sales Co., Ltd., Montreal, Que.
PULP, unbleached sulphite
*Riordan Sales Co., Ltd., Montreal,
PULP, sulphate and sulphite
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
PUMPS, boiler feed
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Dominion Engineering Works, Limited, Montreal, Que.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS, turbine and reciprocating
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
PUNCHES
*Pratt & Whitney Co., Dundas, Ont.
RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.
RAILS (STEEL).
*Algoma Steel Corporation.
RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.
RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.
READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.
REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.
RECEPTACLES, fibre
*The Diamond State Fibre Co. of Canada, Ltd., Toronto.
REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris Ont.
REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford Ont.
*John Hillock & Co., Ltd., Toronto.
REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.

REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.
REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.
RINGS, gold
*Caron Bros., Montreal, Que.
RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
RODS, fibre
*The Diamond State Fibre Co. of Canada, Ltd., Toronto.
ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.
ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.
ROOFINGS, plastic, liquid, rubber
Beveridge Paper Co., Ltd., Montreal, Supply Department.
ROOFING, ready to lay
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.
ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Deminion Bridge Co., Ltd., Montreal, Que.
ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.
ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.
RUBBER FOOTWEAR
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.
RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Limited, Toronto.
RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
RUBBER MILL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
RUBBER PACKING
*Garlock Packing Co., Hamilton, Ont.
RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.
SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.
SAMPLE CASES
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.
SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.
SALT
*Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.
SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.
SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.
SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.

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SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.

SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.

SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.

SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.

SCREENS; Folding Draft
The Stratford Mfg. Co., Limited, Stratford, Ont.

SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*National Acme Company, Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.

SEATS; Park and Grand Stand
The Stratford Mfg. Co., Limited, Stratford, Ont.

SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.

SERGES
Rosamond Woollen Co., Almonte, Ont.

SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.

SHAFTING
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.

SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.

SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

SHEETS, fibre
*The Diamond State Fibre Co. of Canada, Ltd., Toronto.

SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

SHINGLES
*Bathurst Lumber Co., Ltd., Bathurst, N.B.

SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

SHINGLE STAINS
Sturgeons, Limited, Toronto.

SHIP BUILDERS
J. & R. Weir, Montreal, Que.

SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.

SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.

SHOE PEGWOOD
O. Chalifour, Quebec, Que.

SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.

SHOOKS
Barchard & Co., Ltd., Toronto.

SIGNAL CELLS
*Canadian National Carbon Co., Ltd., Toronto.

SILENT CHAIN DRIVES
*Canadian Link-Belt Company, Ltd., Toronto, Ont.

SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

SILVERSMITH
Standard Silver Co., Toronto, Ont.

SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.

SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

SMOKE CONSUMERS
*Under-Feed Stoker Company of Canada, Limited, Toronto.

SMOKE-STACKS
*Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

SOAPS
J. Barsalou & Co., Ltd., Montreal.

SOAP (soft, oil)
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

SODA ASH
Brunner, Mond Canada, Limited, Amherstburg, Ont.

SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.

SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto.

SOIL PIPE
Anthes Foundry, Ltd., Toronto.

SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.

SOLDER, wire and bar
American Can Co., Montreal, and Hamilton.

SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.

SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.

SPECIAL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.

SPINNING AND STAMPING
*Tallman Brass & Metal, Ltd., Hamilton, Ont.

SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.

SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.

SPRAYERS
Spramotor Co., London, Ont.

SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,

SPRING SHACKLE BOLTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.

SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.

SPROCKET WHEELS
*Canadian Link-Belt Company, Ltd., Toronto, Ont.

STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.

STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

STATIONERY, office
Harris Lithographing Co., Toronto.

STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.

STEAM SHOVELS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.

STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.

STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.

STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

STEEL PLATE WORK
*Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.

STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Algoma Steel Corporation.

STEEL SASH
*Canadian Metal Window & Steel Products, Limited, Toronto.
*Dennis Wire & Iron Works Co., London, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.

STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.

STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

STEREO TISSUE AND BLOTTINGS
Beveridge Paper Co., Ltd., Montreal.

STEREOTYPING
Central Press Agency, Toronto.

STOKERS
*Under-feed Stoker Co. of Canada, Ltd., Toronto, Ont.

STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

STORAGE BATTERIES
*Northern Electric Company, Limited, Montreal, Que.
*Prest-O-Lite Company of Canada, Limited, Toronto.

STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.

STOVE POLISH GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

STOVES AND RANGES
*McClary Mfg. Co., London, Ont.

STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.

STRUCTURAL STEEL
*Algoma Steel Corporation.

STRUCTURAL STEEL WORK
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd. Walkerville, Ont.

SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

SULPHUR BURNERS
*The Hydraulic Machinery Co. Limited, Montreal.

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SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.

SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.

SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.

SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.

TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.

TANKS
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*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Goold Shapley & Muir Co., Limited, Brantford, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont
*Toronto Iron Works, Ltd., Toronto.
Wm. H. White, Ville St. Pierre, Montreal, Que.

TANKS, elevated steel
*Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*Canadian Des Moines Steel Co., Limited, Chatham.

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*Canadian Chicago Bridge & Iron Co., Ltd., Bridgeburg, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

TANNERS' OILS & GREASES
Salem Oil & Grease Co. of Canada, Limited, Farnham, Que.

TANNERS' SUPPLIES
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TAPS
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*Pratt & Whitney Co., Dundas, Ont.

TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

TELEPHONE ACCESSORIES
*Northern Electric Co., Ltd., Montreal, Que.

TENTS
Turner, J. J., & Sons, Peterboro, Ont.

TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

TERRA COTTA, architectural
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

TEXTILE SUPPLIES (shuttles, bobbins, spools and picker sticks)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.

TIE TAMPERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

TILING, rubber
*Gutta Percha & Rubber Ltd., Toronto, Ont.

TIME RECORDERS
*International Business Machines Co., Ltd., Toronto, Ont.

TINWARE, lithographed
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

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*Gutta Percha & Rubber Ltd., Toronto, Ont.

TOILET PAPER, towels, tissues
Beveridge Paper Co., Ltd., Montreal.

TOOLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.

TOOLS, sheet metal workers'
Brown, Boggs Co., Ltd., Hamilton.

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A. C. Gilbert-Menzies Co., Ltd., Toronto, Ont.

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*Ridout & Maybee, Toronto, Ont.

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The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.

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Raoul Renault, Quebec City.

TRANSMISSION MACHINERY
Beet Engineering Works., Limited, Toronto.
*Canadian Link Belt Co., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

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*C. A. Dunham Co., Ltd., Toronto.

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*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.

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*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.

TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.

TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.

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*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto.

TUBES, fibre
*The Diamond State Fibre Co. of Canada, Ltd., Toronto.

TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.

TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Copper Products, Ltd., Montreal, Que.

TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.

TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

TURBINES, hydraulic
*Dominion Engineering Works, Limited, Montreal, Que.

TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.

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*The Goldie & McCulloch Co., Ltd., Galt, Ont.

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Rosamond Woollen Co., Almonte, Ont.

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*Shurly & Derrett, Ltd., Toronto.

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Brantford Cordage Co., Ltd., Brantford, Ont.

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Hamilton Cotton Co., Hamilton, Ont.

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*Pratt & Whitney Co. of Canada, Dundas, Ont.

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*Dart Union Co., Ltd., Toronto.

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Imperial Rattan Co., Ltd.

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*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

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*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.

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James Morrison Brass Mfg. Co. Ltd., Toronto, Ont.

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*Mason Regulator & Engineering Co., Ltd., Montreal, Que.

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*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

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*The Steel Co. of Canada, Ltd., Hamilton, Ont.

WASHERS, fibre
*The Diamond State Fibre Co. of Canada, Ltd., Toronto.

WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.

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*The Diamond State Fibre Co. of Canada, Ltd., Toronto.

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Factory Waste & Metal Co., Montreal, Que.

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Benjamin Moore & Co., Ltd., Toronto, Ont.
Beveridge Paper Co., Ltd., Montreal, Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.

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Beveridge Paper Co., Ltd., Montreal, Supply Department.

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Sturgeons Limited, Toronto.

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WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.

WELDING APPARATUS AND MATERIALS
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*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

WHEELS, corundum and emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

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Oil Well Supply Co., Ltd., Petrolia, Ont.

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Coniagas Reduction Co., Ltd., St. Catharines, Ont.

WHITE LEAD
*A. Ramsay & Son Co., Montreal.

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*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

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*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
*Frost Steel & Wire Company, Limited, Hamilton, Ontario.

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*Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.

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*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnston & Sons, Ltd., Montreal, Que.

WIRE, feeder and trolley
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

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*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnson & Sons, Limited, Montreal, Que.

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*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

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*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

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Canada Wire & Iron Goods Co., Hamilton.
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*The B. Greening Wire Co., Ltd., Hamilton, Ont.

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*Canada Wire & Iron Goods Co., Hamilton, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.

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*Northern Electric Co., Ltd., Montreal, Que.

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Standard Fuel Co., Toronto, Ont.

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*Canada Machinery Corporation, Ltd., Galt, Ont.

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*The Steel Co. of Canada, Ltd., Hamilton, Ont.

YARNS, cotton
Hamilton Cotton Co., Hamilton, Ont.

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*Consolidated Mining and Smelting Co., of Canada, Ltd., Montreal, Que.

ZINC, electrical
*The Canada Metal Co., Toronto.

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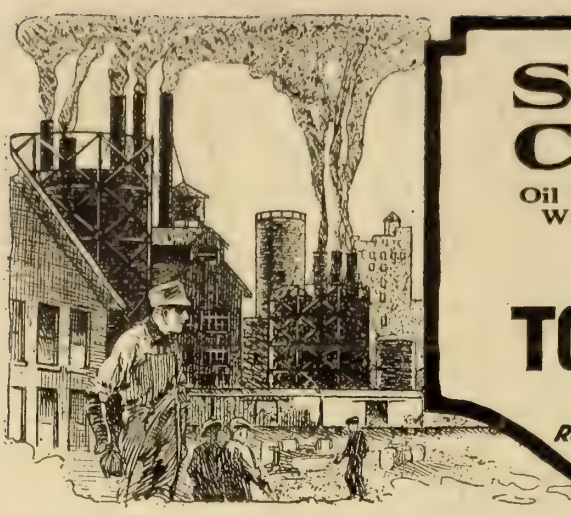
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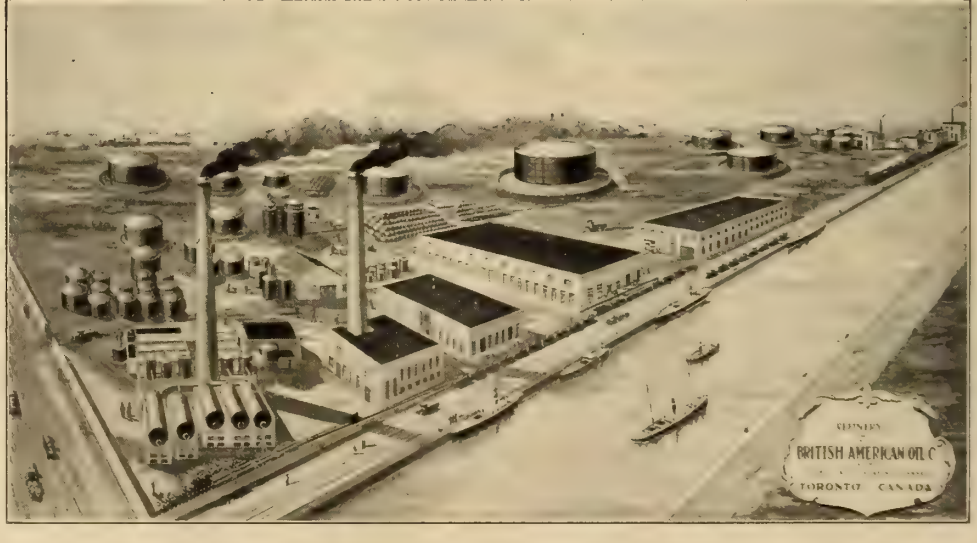
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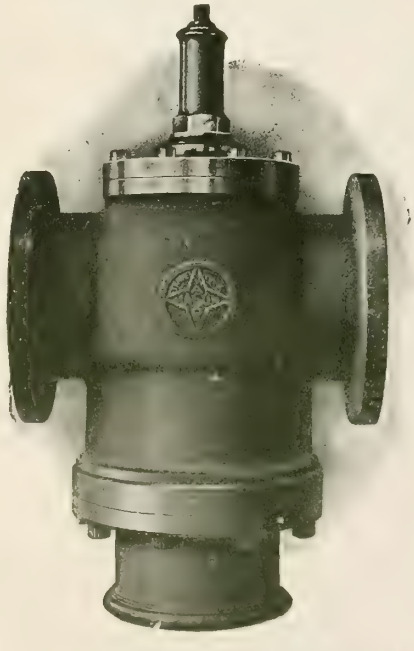
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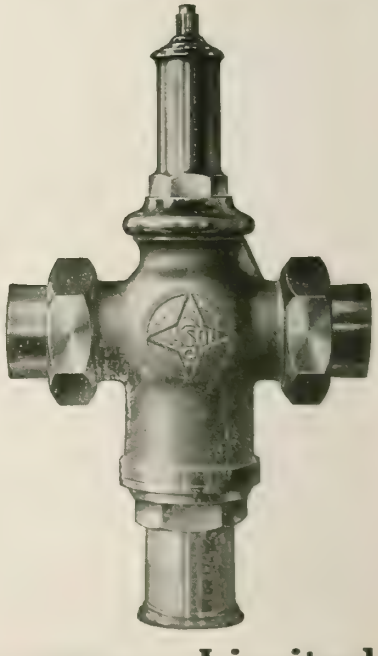
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